VICE AND INSANITY

WILSON

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CLINICAL STUDIES

IN

VICE

AND IN

INSANITY

By the same Author,

DRUNKENNESS,

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CLINICAL STUDIES

IN

VICE

AND IN

INSANITY

BY

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To

T. S. CLOUSTON, M.D.,

WHOSE CONSTANT KINDNESS AND WISE INSTRUCTION HAVE
INSPIRED WHAT IS OF VALUE IN THESE PAGES.

PREFACE.

One good function a preface certainly has, that it gives an opportunity of expressing thanks which are due. These clinical studies which follow have been made possible by the records of cases kept at Mavisbank by the nurses and attendants, under the direction of the assistant. The method which we follow is the graphic, the chart, method, and it is unusual and not easily intelligible. It was my intention to give an account of it in this book, and to publish a few charts which would illustrate it. To that end, Dr Shiels was good enough to write a description of our charts. With great regret I find that the publication of them would add unbearably to the expenses of the production. All the same, the records have been fully used in the letterpress. It was in Dr Cowper's time that we began to use charts, and, but for his diligence, they would not have survived. It is a pleasure to acknowledge his work, and that of his successors—Dr Henry Brown, Dr Waterston, the late Dr Allan, Dr Shiels, and Dr Smith.

The account of Alcoholism here published I submit with all deference to experts. Dr Clouston has been good enough to read it in manuscript, and to make many valuable suggestions—another added to a long list of kindnesses.

The student will perhaps find the account of cases more interesting. In the preface to the Alcoholic cases, he will find a statement of the point of view from which the accounts were written, and again, as a preamble to the Insane cases, he will find a similar statement. Special attention may perhaps be drawn to the case of "Mrs Twelfth," as exemplifying the contrast between conscious or voluntary and delirious mania.

The index has been prepared by Dr Smith, to whom, and to other friends, I am indebted for help in the production of this volume.

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PART I.

DRUNKENNESS AND ALCOHOLISM.

AN ACCOUNT OF ALCOHOLISM INTENDED TO CONVEY AN IDEA OF A PROGRESSIVE ALCOHOLIC LESION IN DRUNKENNESS, WITH A PROVISIONAL SUGGESTION OF THE NATURE OF THE VEHICLES AND MODES OF NERVE-MOTION IN HEALTH AND IN DISEASE.

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DRUNKENNESS AND ALCOHOLISM.

Present Confusion of Ideas.

It is surely a remarkable fact, and to be regretted, that, notwithstanding the very great increase in medical knowledge which has characterised the latter half of this century, there is no general agreement among physicians as to the nature of drunkenness and of alcoholism. In the reports of any medical congress, either in England or on the Continent, one fact is established beyond dispute—that the various authorities who may be called upon to discuss any aspect of this question differ widely from each other in the point of view from which they regard drunkenness; and no great number of them are agreed upon a general conception of its nature. The fact is that apparently physicians are bent upon regarding alcoholism upside-down, in spite of the classical teaching of Lauder Brunton and other authorities, who discern the real nature of intoxication, and in spite of the equally authoritative exposition of the nature of alcoholism which Hughlings Jackson and others have given. Ask any specialist to say briefly what he means by alcoholism and he will most likely tell you that it is a disease in which the patient manifests some paresis or paralysis of motor nerves, and perhaps tremors and epileptiform symptoms, some loss of sensation and perhaps paraesthesias and hallucinations; and he will add that these are generally complicated by some affection of mental faculties, such as delusion and loss of memory. That is exactly the reverse order of the symptoms of alcoholism, the order in which they did *not* develop; and the statement leaves out of account altogether the primary and the essential group of facts—the impairment of self-restraint, the loss of directive ability, and the abeyance of initiative, which constitute the patient's moral paralysis.

This almost universal misunderstanding as to the nature of alcoholic dissolution is to be attributed to the very

proper desire on the part of physicians not to confuse moral issues; for there is a serious danger that, in our attempts to expound a disease which had its beginnings in a vice, we may seem to forget, to excuse, or to explain away, the patient's wrong-doing; and indeed, as I have recently suggested,* it seems to me that we have committed this mistake. Long ago all the facts of alcoholism were regarded from a purely moral point of view, and the drunkard's pains and fits and palsies were considered to be a just judgment upon his sin. For many years now, however, medicine has recognised that states of bodily illness, consequent upon alcoholic excess, come within its province, and the alcoholic insanities also are considered and treated without any reference to the immorality which occasioned them. Then it was discovered that that same immorality sometimes was due to pathological states, and "inebriety" and dipsomania became diseases, and their vice seemed to have found an excuse. But still there is no general agreement, no general principle, no attempt to bring all the phases of the disease within the scope of one general conception. That is the task which I propose to attempt in this present account of alcoholism.

Nomenclature.

All the forms of nervous disease, which is the direct effect of alcoholic excess, are one and the same. A great confusion has been created by the various meanings attached to the various names of alcoholic illnesses by different writers. They distinguish between drunkenness, inebriety, alcoholism, dipsomania, mania a potu, delirium tremens, alcoholic insanity, alcoholic epilepsy, etc., as if each of these was a disease by itself. That the distinctions are useful and valid there can be no doubt. But it would be a great gain did it become customary to designate all of them under a generic name, so as to express the fact that they are but various manifestations of the same kind of disease which are described by titles so diverse. One day it will come to be acknowledged that the essential difference between all these manifestations of alcoholism, such as those above specified, is a difference in the part of the nervous system

* Journal of Mental Science, Oct. 1898.

affected, the localisation or diffusion of the lesion, the acuteness or intensity of it and its complications; but that a definite and fairly constant lesion runs through them all.

To suggest a new nomenclature is always a very rash enterprise, and I do so now with very little hope of its acceptance. But a tabulation of the more important alcoholic diseases will serve as a diagram to impress upon the student the idea of the oneness of them all, in spite of apparently great divergences. Were a new nomenclature under debate, I should suggest that the word "alcoholism" should always be used, qualified by some distinguishing adjectives, or else that the adjectival form, "alcoholic," should occur in the names given to varieties. And, on general grounds, it seems to me preferable to have English names for diseases of English people.

Alcoholism.

Common drunkenness, . .	Simple alcoholism.
Chronic alcoholism (with slow reduction of function in various cortical areas), . . .	Chronic alcoholism.
Alcoholic paralysis, . . .	Hemiplegic alcoholism. Paraplegic alcoholism. Aphasic alcoholism, etc., etc.
Alcoholic epilepsy, . . .	Epileptoid alcoholism.
Delirium tremens, . . .	Acute delirious alcoholism.
Alcoholic insanity, . . .	Alcoholic insanity, or insane alcoholism. *e.g.*—Hallucinational alcoholism. Delusional alcoholism. Maniacal alcoholism. Immediate maniacal alcoholism (mania a potu). Melancholic alcoholism. Stuperose alcoholism, etc., etc.
Peripheral alcoholic neuritis, .	Peripheral alcoholism.

Inebriety, in my opinion, is a form of simple or of chronic alcoholism, or of one or other of the above varieties. In the subsequent pages I shall try to say what practical criterion we shall adopt to test when a drinker becomes a drunkard. Every drunkard, as will be seen, is, in my opinion, afflicted with a disease (alcoholism), which specially affects his purposive functions. Drinkers who are not drunkards do not come within the province of medicine as such. An inebriate is a drunkard, and drunkenness is alcoholism.

Dipsomania is a name which ought to preserve its original meaning. The term is sometimes used as synonymous with drunkenness, or inebriety, or alcoholism. But that is a misuse of the term. "Dipsomania" was originally used to designate a special susceptibility to alcohol, and an inordinate desire for it, due to an abnormal constitution or diathesis. It would be much better to so restrict the meaning of the term. In that sense, a person may have dipsomania and not suffer any disease;

he need not even drink to excess. For example, a shrewd physician might detect an idiosyncrasy as regards alcohol in a child. The patient might be safeguarded, and might safeguard himself, all through life, so that the evil potency never realised itself in actual excess. But, so long as the idiosyncrasy persists, it is dipsomania. The word is, I think, unfortunate. Alcoholic predisposition or alcoholic susceptibility would be better. At all events, dipsomania refers to a diathesis or potency. It should not be confused with actual alcoholic disease. All the so-called dipsomaniacs who have become the victims of their predisposition, come within the meaning of the terms used above to designate the varieties of alcoholism (for forms of dipsomania, *see* "Drunkenness," Swan, Sonnenschein & Co., 1892).

Practical Test of Alcoholism.

It would be futile, and it is probably unnecessary, to attempt to show that there is a point at which the habit of drinking becomes drunkenness, and entitles us to designate the drinker a drunkard. There is no hard and fast line. And yet we cannot be too careful to make it clearly understood what the condition is which we propose to consider. Probably we cannot do better than leave the question to be settled by popular verdict. When a man's neighbours call him a drunkard, because they have seen him so often incapable, when his family knows that he is so, when his employers or others who have business relations with him are aware that his habit is mastering him, we may take it that the fact is established. There is, however, a still safer criterion. As physicians, we are not called upon to say whether every man or woman is or is not a drunkard; it is not our business to make an unsolicited diagnosis. All that we have got to do is to treat and to understand the cases of those concerning whose affection we are consulted. When a person finds, or when his friends find, that he cannot conduct himself soberly under the social conditions which are normal to his time, and when no persuasion or fear or exhortation is strong enough to induce him to reform, then he is a drunkard. That is to say, that when we speak of drunkenness we may be held to be speaking of a stage in the habit of drinking when the man or woman, after a conclusive number of tests, is proved to be incapable of stopping it. I think it would be a great gain did we agree upon some such statement, so that, whenever a patient came to us or was brought to us, we might prescribe some quite definite test of his or her power of control,

and let our diagnosis, our treatment, and our prognosis be guided by the issues. It seems to me a matter of the first scientific importance, because it is one of really national importance, that we should make it publicly known that we are agreed as to what drunkenness or alcoholism is.

The exigencies which may be created by the operation of the new Act (Inebriates Act, 1898), will call for carefulness on the part of physicians in their relations to alcoholic patients. Questions may be raised again and again as to whether this or that person is a habitual drunkard within the meaning of the Act. The equivalent question for us, as physicians, is: Does this man or woman suffer from alcoholism? The test to be applied should be formal and definite. Common sense would say that a man who cannot stop drinking is a drunkard, and, having regard to the purposive failure which is the essential feature of alcoholism, the test is quite scientific. Considering how delicate such an enquiry may be held to be, as it is an investigation of moral character, and considering the possible issues, the conditions of the test should, whenever possible, be put in writing. Two cases, which are authentic, will illustrate how the plan will work.

CASE I.—A gentleman of means, and of good social position, drank to such excess as to make life almost unbearable for his wife and family. The physician who was consulted by the wife saw the patient. The patient allowed the *prima facie* grounds for the consultation. In the opinion of the physician, the patient was suffering from alcoholism. Legal advice was taken. A deed was drawn up wherein the patient contracted to entirely abstain from alcoholic liquors, failing which he would pay his wife a handsome allowance and consider her justified in separating from him, and in taking her family with her. In a very short time the patient took to drinking again, his wife and family separated from him, and he pays them the handsome allowance.

Whatever the importance of these facts from the point of view of the court, they are held by the physician to prove that the patient cannot stop drinking, that he is suffering from alcoholism.

CASE II.—A gentleman, in conditions similar to those of the preceding case, was called upon by a physician, at

the instance of the patient's mother. The patient was bordering upon acute delirious alcoholism. A letter was written, in which the patient undertook to abstain from all alcoholic liquors for six months, commencing on a date two days subsequent to the date of the letter. The written agreement went on to promise that, if he failed to keep his promise of abstinence, he would forthwith enter a retreat for six months, and, if he refused to implement that part of the bargain, he authorised his wife to engage attendants to summarily remove him, and promised to raise no action against her or them for doing so. The patient, who, no doubt, was aware that he was in a grave state, signed the document readily. Then he went into town and bought a supply of whisky. For the next day and a half he drank as much of it as he could take. Then, on the morning of the day prescribed, he threw out, with regret, the unfinished bottles, and for exactly six months absolutely abstained from drinking. On the day upon which the agreement expired, he began again, and is now as bad as ever.

As regards the patient's state on that particular day when the letter was signed, the test was conclusive. The patient must be pronounced free from such disease as would justify further proceedings. It is a case which is likely to come up again, and a longer period of abstention should be prescribed; but, as regards the condition at the time, the result of the probation must be held to be conclusive.

As a practical measure of some importance, a physician who is called upon to pronounce judgment on such a case, should have witnesses to attest that the patient was aware of the significance of the contract when he signed it, or he should correspond with the patient on an early subsequent date, so as to have written evidence that the promise was understood and is admitted. Such measures are not enjoined with a view to law courts, because, in many instances, physicians would believe themselves morally bound to keep silence, but they are of the utmost value as means of increasing the influence of physician upon patient.

Drunkenness is always Alcoholism.

Drunkenness in this sense is, in my opinion, always a disease, but (and I would not separate the qualification

by so much as a period), it is a disease primarily of the moral functions, and one which demands very careful, very intelligent, and sometimes very strict and even severe moral treatment. That physicians have not long ago accepted this fact, that drunkenness is always a disease, is due to their unwillingness to bring the higher spiritual activities within the domain of physiology, and the loss of them within the domain of pathology. But it may be assumed, I think, that no inquiry into the physiology or into the pathology of spiritual activities is irrelevant for physicians whose daily duty it is to deal specially with mental facts. And so it comes about that, having found some shadow of a physiological explanation of moral facts—or at least what appears to oneself to be so—one feels justified in attempting to arrive at a pathology of vice.

The view which will now be set forth may be summarised by saying that drunkenness is the first stage in an alcoholic dissolution of the nervous system to some of whose later manifestations the name of alcoholism has usually been given. In this disease the highest functions of mind are first attacked, and the impairment of them continues and becomes deeper during the course of the malady. The lesion is essentially a progressive lesion, which begins in the dendritic system of the cortex, and the later symptoms of it are to be explained as due to something in the nature of a descending or ascending or circular degeneration. All the secondary (positive) signs of the disease—paramnesia, delusion, hallucination, excitement, melancholia, paralysis, convulsion, etc.—are due to the obstruction of nerve movement in the dendritic system, and to consequent diffusion of stimuli into wrong paths, or to their undue concentration in certain mechanisms; and if we find lesions in the lower mechanisms which account for secondary symptoms, they have been occasioned by the tonic degeneration which has spread from the dendritic lesion. We may now proceed to expound this view of the disease, only adding this further preface by way of explanation, that this account of drunkenness occurs in what purports to be a series of clinical studies, because it is based, not upon pathological appearances, but upon inference from clinical facts. These, of course, are considered in the light of recent research into the physiology and pathology of mental processes.

Reduction of Character in Drunkenness by Impairment of the Purposive Functions.

Limitations of space forbid that I should dwell at length upon the signs of intoxication and of alcoholic dissolution following upon habitual intoxication. For a serial account of these, I take the liberty of referring to the earlier treatise —("Drunkenness"). But I must reiterate a central fact. The first general effect of alcohol is an increased sense of well-being. That is a systemic state in which, with a general stimulation of the cortex, there is an access of energy in all the functions, and accordingly a general feeling of pleasure. Presently, however, we have to note more particular effects. We have only to do with practical and outward signs—the effect of alcohol upon conduct. These are not usually what they seem. The characteristic effect of alcohol seems at first to be a quickening of mental processes. That, however, must not be regarded as a primary effect of the agent. Rather it must be held to imply, and to be occasioned by, an abolition of self-restraint. This loss occurs in the realm of what may be called the purposive functions. That is to say, it occurs in those functions which subserve self-direction. The more a man drinks, the more his intoxication interferes with his normal or usual self, so that when he is quite drunk it is clear that he is hardly self-directed at all, but rather a being whose conduct is in the nature of reflex responses to his environment, or of so-called automatic activities which have no apparent occasion outside of his own brain. But, I repeat, this interference with the purposive functions, which is so obvious in the later stage of intoxication, must be held to account also for the liveliness of mental activity which we usually regard as a direct alcoholic excitement. Diffidence, fear, caution, prudence, resolution—these are elements of restraint which are first impaired in intoxication, and it is their abeyance which allows and occasions the rise of activities, such as quickened wit and ready resource.

The functions which are first assailed in intoxication are those which are also first to be impaired in alcoholic dissolution. Moreover—and this has not been sufficiently recognised—this disability of the purposive functions in alcoholism continues throughout the progress of the disease, and becomes deeper and greater the longer it lasts. No

matter what the secondary symptoms may be, the purposive defect is the primary and the greatest effect of drunkenness; and, further, as we shall presently see, all the later effects flow directly from it.

As I must refer to purposive disability again and again, because I regard it as the central fact in alcoholism, it may be well to explain what is meant. The term implies an interference with the processes of mind which constitute self-direction. It is impossible to enumerate or describe all these functions, because to do so would be to expound the whole subject of the human will. But when we speak of purposive failure or disability in drunkenness, we mean an interference of some kind with impulse, choice, or expression. These may be taken as representing three aspects of will for which we can conceive some kind of physiological correlatives. The functions which subserve promptings or impulses to do, or to refrain from doing, this or that; the functions which subserve an act of choice between two or more alternatives; the functions which, when a choice has been determined, execute it and give effect to it; these are the purposive functions. The central processes, those which subserve choice, are, from the physiological view, the highest and last developments of the human brain. They are the first to be impaired in alcoholism. Drunkenness, then, is a disease in the mechanisms which represent the will.

Some authorities (and others who are not authorities) have recently objected that well-marked cases of drunkenness do occur without any great impairment of the moral sense. We should be very slow to accept any such statement. The fact is that physicians are not very well practised in investigation of moral facts. Such an inquiry is of a somewhat delicate nature, and we should not be surprised if our rather rough methods do not at once reveal subtle changes in the moral nature of our patients. In the huge majority of cases there is no difficulty at all. Most drunkards are flagrantly immoral, many of them criminal. The difficulty only occurs in the case of a very few men and women whose drunkenness is of an exceptional kind. In particular, there is some difficulty in discerning the degradation of moral function in periodic drunkards, who emerge from their occasional spells of intoxication with remorseful tears and pious promises. No one need doubt the sincerity of these most unfortunate backsliders; but, before we can admit that they are an exception to the general rule that drunkenness is a disease essentially of the moral functions, someone must perform the most difficult and unlikely task of proving that they have as clear a judgment in moral questions, as elevated moral sentiments, and as resolute moral purposes as if they had never given way to the vice which occasionally overcomes them. The most that can be said of them is that their drunkenness does not have a very obvious influence upon their character, because it is intermittent and allows intervals of regeneration of the functions which have been assailed. The progress of alcoholism is not independent of alcohol, and, in the early stages, at least, the lesion does not spread if the agent which causes it is withheld.

There are two kinds of activity, both of them to be regarded as part of the purposive function, to which I

wish to direct special attention. These are, Initiative and Discipline. Of these, initiative is the more delicate, the more plastic, and the more recent function; and it is more generally impaired in drunkenness. We must remember, however, that it is a quality of mind which is not always apparent in the sober. In this connection, as always, we must interpret a patient's character in disease with an explicit reference to what it was in health. As it happens, a great many drunkards are persons who once had an unusual gift of initiative, and, in some instances, it was their initiative which led them indirectly into the vice. When the vice has continued for some time, a defect of initiative is always apparent, and the want of it has a great deal to do with the impossibility of reformation. For we must be careful, when we speak of such a function as this, not to conceive of it merely in the abstracted sense which the popular use of the word denotes. Generally speaking, initiative means enterprise, a new and original departure from the accustomed. But psychologists should rather think of it as a mode of mind, of which enterprise is only the most typical example. As physicians, we must try to conceive of it in the light of its physiology. But the physiology of initiative is peculiarly difficult. That is not to be wondered at when we consider that it is a function of the last importance in the evolution of character, one upon which the progress of mind depends, and which is implied in every advance in thought, in sentiment, and in conduct. Almost all that can be said about its physiology is that it depends upon an original (inherited) quality of brain mechanisms, which makes possible new combinations and new connections of nerve cells and fibres. It is the exact counterpart of the quality of retentiveness in nerve mechanisms which ensures that the brain will form a pattern to answer to every activity in experience, and will store the image of it. Initiative is a process which transcends experience. In initiative activities the nerve movement does not simply follow the paths which have already been formed, but reaches forward to form new patterns of nerve connections. Perhaps it depends upon nothing more than just a special vitality or energy in nerve mechanism, whereby so-called automatic activities are initiated, which give an unusual momentum to the onward currents in the brain. The process is, in some sense, a diffusion of nerve move-

ment beyond the organised paths and patterns of brain cells and fibres. That is a kind of process which is implied in all mental activities which denote development. The act of understanding, the development of an idea or a conception, the process of generalisation as well as that of analytic refinements, the most humble flight of imagination, the extension of sentiment, ambition, new projects, hope, assurance—all depend upon some onward and formative activity, such as has been hinted at. And we shall certainly see, if we look for it, that there is, in drunkenness, a great loss of this kind of activity manifest in every faculty which the drunkard has left to him. Why that should be so we shall, I think, understand when we have considered the nature of the alcoholic lesion. Also, I may say, in parenthesis, for we shall not dwell upon it later, it is probably the beginning of recovery of this kind of activity, after a few months' abstinence, which carries the drunkard past a safer judgment, and which fills him with the illusive hopefulness and the false estimate of his strength, to which the name of *spes vinosa* has been given. That is a critical period in the convalescence of the drunkard, and one which physicians have not sufficiently recognised, a stage exactly comparable to the misleading feeling of strength, in a patient who is recovering from any acute bodily illness, when, if he is not prevented, he will undo his recovery by rashly exposing himself to danger.

The other kind of function to whose impairment in drunkenness I wish to call attention, and which we may call discipline, is far different from initiative. It is, indeed, in many respects opposed to it. Yet the lesion which impairs initiative and reduces the drunkard to a more stereotyped and uninteresting level at the same time destroys the basis of the general incentive and motive which has given continuity and method to his life. Such a function as discipline is more reasoned and deliberate, and more directly purposive than the kind of process which we have just considered. I speak now of whatever it is that determines a man or woman to live on an ordered system. The considerations which impel a man to go to bed at a given hour, and to rise from it with equal regularity, which decide what and when he will eat and drink, what class of pursuits he will follow and what avoid, what kind of people he will allow himself to be associated with, what kind of things

he will allow himself to say, what methods in business he will choose or avoid—such considerations come from convictions or purposes, ambitions, or perhaps only traditions, which give discipline to his life. Nothing is more obvious in drunkenness than the destruction of this function. It requires, perhaps, a trained intelligence to perceive the more subtle disabilities which come from defective initiative —the slightly dulled understanding, the lessened reach of the imagination, the slowed comprehension of a scheme, the tapering of ambition; but the man who passes can detect the falling away from carefulness in conduct—the irregular hours, the careless dress, the loose acquaintanceships, the coarse language, the sharp practices, or the rashness, or the other lapses from business traditions. These things are but superficial changes in the moral character, which denote a radical difference in the directive or purposive functions which has been inaugurated by the excess of alcohol which is becoming habitual. The drunkard is ceasing to be a man of continuous purpose, he is becoming a man of inclinations. Later, it will be evident to all that he has parted with his purposes and incentives, and is a man without a policy and without a care, unless it be a policy of drift and a care not to be interfered with in his whims.

Though we look at the moral nature of the drunkard in these two aspects, it must not be supposed that we may regard the two kinds of function—initiative and discipline—as separate. They work together in health, and are but two different aspects of mind, and in disease they are not divided. But we can surmise what the kind of physiological process is which underlies discipline, and find it to differ in many respects from what I take to be the physiology of initiative; and we can judge what the effect of the alcoholic lesion will be on both. The physiology of discipline brings us back to the old-established idea of inhibition and direction in nerve mechanisms. Taking the very simple case of a man of one idea—such as one whose chief incentive and guide are what may be called a set of respectable convictions—we have only to imagine a wide field of nerve mechanisms scattered over an extensive area of the cortex, but closely related by connecting fibres, all of whose parts in some way represent the man's general conception of respectability. By frequent exercise these cells and fibres hypertrophy or at least grow strong, and, pushing farther and farther afield, they reach out to associate themselves with the mechanisms of every activity of which a respectable man is capable. And so, as everything is referred by him to his respectable criterion, every current of nerve movement which any experience initiates has a momentum added to it if respectability approves, but is diverted and made to abort if respectability is offended. "For some quaint reason

the keeping of disreputable hours occasions pain to a well-constituted mind," says an introspective psychologist; but that is not hard to understand if we remember that a respectable experience starts an activity which finds its way all through the connections of the respectable centre and gently excites it in all its area, whereas a disreputable experience fails of any such extensive field. The pain of opposition to any general plan of life or general principle may be due to some conflict of nerve movements, such as, I think, Mercier conceives; but it seems unnecessary to account for it otherwise than by saying that the movement which opposes the dominating centre fails to extend over as wide an area as it demands; the gates are closed against it.

By degrees such a general and extensive mechanism (centre), as we have supposed, comes to dominate all voluntary activities. It arrogates to itself the highest function in the nervous hierarchy. That is tantamount to saying that it is an extremely complex and delicate mechanism, the delicacy being greatest in its most recently developed outskirts. And so, in alcoholic dissolution, the lesion first destroys the refinements of respectability, but gradually spreads over all. To physicians the drunkard's loss of self-respect—which is loss of allegiance to his respectable or other highest self—means that the pleasurable excitability in the higher centres is diminishing, and is not a sufficient incentive; loss of direction and of discipline means that the higher centres are not reacting with sufficient vigour to augment proper activities or to divert the improper. The lesion which impairs the activity of these purposive functions we shall presently see to be one which attacks the dendritic system in the cortex—one which, beginning in these mechanisms, spreads gradually until it has involved much lower levels.

The impairments in these two directions which I have roughly sketched will not be dwelt upon again in detail. We shall only notice them slightly when considering the therapeutics of drunkenness. And so I wish to indicate the general nature of the change of which we shall have to take account. When we speak of any form of dissolution of the nervous system, we imply a process which is, to some extent, a reversal of evolution or of development. Accordingly, the alteration in the patient's character is not in the nature of an addition or even primarily a perversion, but rather a reduction of function. That is, the man or woman has been reduced to the level of a lower order of being, and that reduction is true of all his powers in general, though it may be more apparent in some than in others. That is a fact which, I think, physicians are apt to overlook in the treatment and management of drunkards. It has been the custom of our profession to pay attention to the secondary and positive symptoms in drunkenness which very often accompany the general loss of higher function, and to still regard the man or woman as one who should be

treated as a normal person. That, in my opinion, accounts for much of our ill success in the treatment of drunkenness. We ought to bear in mind that there has been an obliteration of the higher layers, so to speak, which characterise a normal character, and that the patient has slipped back to a condition resembling, in some respects, that of a child, or of a savage, or of a lower animal. Childishness or puerility, perhaps, best describes the character of the drunkard when his disease has reached the stage when it is usual for relatives to call in the aid of the physician, and our treatment must have explicit reference to that puerility.

THE PATHOLOGY OF DRUNKENNESS.

Physiological Considerations.

Both when we consider the normal structure of the *cortex cerebri*, which is admittedly the situation of the mechanisms immediately representing refined mental processes, and when we consider the impairments which occur in drunkenness, we shall be able to dispense with a tedious reiteration of the very complex structures which anatomists and pathologists describe. We may do so with the less regret, because one may study books without end which deal with the physiology of mind, and still have no light upon the nature of the mechanisms and their workings as immediately answering to the refinements of mental processes; and we may read an equally large number of treatises on the pathological appearances in the cortex without understanding their relation to the symptoms of disease. The reason is that all such treatises, with one or two notable exceptions, deal with the subject without any explicit reference to the dynamics of mental facts. We shall therefore content ourselves with just as little as will explain the facts of drunkenness from a dynamical point of view.

The mode of energy which we call nerve motion is perhaps less understood than any, which is saying very little for our knowledge of it. But an understanding of the subject, which perhaps would still not satisfy eminent physicists, is enough for practical physicians. There are, so far as I am aware, only two theories which have been at all fully stated. One of these has been elaborated by Gowers in his "Dynamics of Life," and is an account of cortical activity as chemical motion. The other, which answers best to all the demands of the case, regards nerve motion as a form of motion in nerve matter. A nerve current is a current of molecular vibration passing along the paths in the nervous system. More than that we cannot at present say, and, indeed, many would argue that we have already

said more than we are justified in saying. But it does not so much matter what we conceive nerve motion to be as that we should conceive of it somehow. That is what is meant by taking a dynamical view of brain physiology. We must cease thinking of the anatomical facts, and pay more attention to the idea of motion; where it occurs, and how. The brain is just a place where movement in an extraordinary form occurs, and we must try to conceive the conditions for its proper flow and the changes which follow pathological states.

The Dendritic System.

I have said that the alcoholic lesion is one which primarily affects the dendritic systems of the cortex. The reason for affirming that is because it impairs functions which are represented by dendritic structures. Just as we know in what centre of Ferrier's areas the lesion is, which is manifest in a focal paralysis, so we know what kind of structures must be involved in a disease which is characterised by refined mental symptoms of so extensive a nature as those of drunkenness.

That analogy leads me to say at once that the lesion is not a focal one; it is not localised in a small area. The purposive functions have a very wide representation in the cortex. The centres of mind are not here or there but everywhere. That is to say, their ramifications reach to every part of the cortex. Nor are they composed of any one kind of cell. The mental activities which they represent depend, not upon a peculiar type of structure in the cells and fibres, but upon the relations of cells. Mind depends upon combinations, or, as Foster would say, upon the extent and pattern of nerve connections. There has been great dispute among histologists as to which of the cortical cells are motor and which sensory, but at present we have nothing to do with that kind of question. Mind cells are both motor and sensory, or, from another point of view, they are neither motor nor sensory. The motion is to and fro, or circular. For example, when one is choosing one out of several things it cannot but be that the motion in activity during the process comes back to the same cells again and again, first from one side and then from another. We may, if we choose, suppose ourselves standing within

these cells, and then we should say the motion was a motor or outgoing current at one moment, and, the next instant, sensory or incoming. But, if we regard the movement from outside, which is much simpler, then the movement is, in a loose sense, circular.

As we shall have occasion to make frequent use of the term "dendritic system," it may be well to explain here what it means. That will be best understood if we suppose that we are examining microscopically a section of the cortex. For our purpose it does not matter where the section has been taken from. Our only business is to try to understand what the vehicles are of that nerve-motion which is active when the mind is active.

In any microscopic field which shows a section of the cortex, you will almost certainly find a cell (neuron) which has an axis-cylinder (medullated) process which we call the axon, and other minutely branched processes, each of which is called a dendron; and it will have a nucleolated nucleus surrounded by a cell-body. The dendrons of the cell will branch at a very short distance from it into innumerable dendrites, with a complexity which makes it impossible to trace any one branch for any distance in the field. Possibly you may see what appears to be an anastomosis between the process of one cell and another fibril which seems to come from another cell; but that would be rarely. You will see any number of the dendrites seeming to come to an end in the field. Along their course, moreover, you will see a series of little buds or "gemmulæ," which are almost certainly terminals of some kind. The latest theory of these (B. M. J., 14, 1, 99, p. 93) is that they determine activity and non-activity of the process. According to Lugaro, a general expansion of them means a general diffusion of stimuli, while an ordered and limited expansion of them is the physical counterpart of an ordered and particular mental process. These dendritic fibrils lie in what may be called a matrix. That matrix is a form of lymph. It is supported by a fine network of neuroglia cell processes; and blood vessels and capillaries ramify in it, which may be supposed to give it some support besides fulfilling a nutritive function.

Here, then, is a spongy, semi-fluid substance, in which the more organised material consists of an infinitely complex meshwork of nerve cells and nerve-cell-processes, neuroglia cells and fibres, and vascular elements; and in which the fluid element is an undifferentiated (?) lymph filling up the interstices of the meshwork. That is the kind of stuff in which nerve-motion occurs.

The dendritic system may be defined as a system of primitive nerve-fibrils, some of which pass through this jelly-like matter, some beginning in it, some ending in it; and, as we shall presently see, there is reason for supposing that currents of motion pass to and from the fibrils, not only by continuity of one fibril with another, but, probably more often, by mere contiguity: so that we must assume the extra-fibrillar material to have a conductive function, and include it in our conception of a dendritic system.

When we try to conceive the course of nerve motion in a dendritic system, it is hard to say where we should begin. The motion is circulating through and through, to and fro, round and round. Only one idea seems necessary, that a fibril transmits motion in one direction only, that is, either towards its cell, or away from its cell. Nerve motion, as we understand cortical function at present, always goes onward, never turns back; and, further, it is the general belief that each fibril is differentiated, so as to conduct it in one or other direction, but not in both. There is reason, however, for supposing that motion may become latent, that it may temporarily cease to be actual, by being locked up within a cell (perhaps still as motion).

We may conveniently take a cell in our dendritic system as the starting point of the motion at any given moment. Within the cell, around the nucleus, but outside of it, there is a network of primitive fibrils. From that, a strand of of them gathers into an efferent process which may be a medullated, axis-cylinder process. Thence the path passes along the process, outwards by its right-angled branches, and, as the twigs become smaller and smaller, we may speak of the efferent terminals as arboriform. Such a process may be conceived of as a tree whose trunk is long or short, according to the function of the cell, which branches sooner or later, and which terminates sooner or later in an infinity of twigs (leaving aside at present instances of continuous fibril from cell to cell). In this efferent process the motion passes from trunk to twigs. Leaving the terminals, we cannot suppose that the motion goes nowhere, or that it merely commits itself to the ubiquitous æther. If it is to continue, it must be transmitted to some other material vehicle, and, failing continuity with neighbouring fibrils, we must conclude that the motion is conveyed by as yet undifferentiated paths in the fluid medium in the meshwork of fibres. Be that as it may, we have now to follow it into new terminals—terminals which are the beginnings of afferent cell processes. These, again, are arboriform—a multitude of clustering twigs. But now our tree is one whose twigs conduct motion into branches, these branches conduct it to a trunk, and that is planted on the cell—an afferent structure. From that afferent process, and others, the primitive fibrils come which interlace around the nucleus to form the perinuclear network of fibrils from which we started.

As I take it, then, cortical function depends on a multiplication of these dendritic structures. All over the cortex

this semi-fluid medium lies—a medium into which arboriform structures are dipped in infinite number; some of them to lead motion out at the ends of the twigs, others again to bring it in by the ends of twigs; and the trunks of these structures are cell processes, and the perinuclear fibrillar network is the meeting ground—the centre of the cell, where motion may be said to be concentrated. We have now only to exclude from our mind the notion of any one cell, and to imagine an infinity of cells, some of them near, most of them variously removed from each other, but all of them communicating by fibrillar terminals directly continuous with each other, or using the lymph around them as a conductive medium, to complete our notion of the dendritic systems.

It is feasible, then, to suppose that, in this universal structure, particular differentiation of paths corresponds to particular function. When an idea, let us say, is active in the mind, we may assume that nerve motion is active in certain cells and fibrils, and not in others, and that their representative mechanisms have become differentiated by use. The primary conception, necessary to understand such developments, is that these dendritic structures are relational in their function. Cortical function is all a matter of connections. When any stimulus, such as a sound (words, for example) reach the brain, the effect of them must depend entirely upon the connections which exist between the cells in the auditory centres and other cells in the cortex. These connections are partly differentiated at birth, as, for example, the medullated, axis-cylinder processes. But it is certain that diffusion of motion occurs towards structures which have not as yet differentiated in relation to it; and, in order to represent the plasticity of mind, we must assume that, day by day, new paths are being organised. Many recently organised paths are doubtless such as are not revealed under the microscope, and it is important to have that in mind, for these are just the structures which are first attacked in a progressive dissolution such as alcoholism.

It is necessary, I am afraid, to warn the student to be very slow to accept current accounts of pathological processes in the cortex. I would refer anyone who wishes to understand how backward our knowledge is of the essential nature of the changes which underlie mental disorder, to an instructive summary by Dr Ford Robertson, in the Journal of Mental Science, for October, 1898. During the next few years we may expect something useful from microscopists. Recent work in this department approaches the real subject for the first time. It was only when the fibrillar (achromatic) structures in the cells had been described as of a different nature from the chromatic bodies which occur in it, and from the nuclear structure, that we began to have a glimmering of a nervous, as distinguished from a nutritive function of the cell. The work of more than five years ago may be said to have demonstrated nothing more than the bye-products of cortical degenerations. The hypertrophy of connective tissue elements and of vascular elements, cellular proliferation,

pigmentation, fat, and all such changes, are but another instance of the multiplication of lower elements alongside of a dissolution of the higher. What we want to be taught is something much finer. We must learn what constitutes diminished excitability from fatigue and from poison, and, in particular, we must learn when that change has become irremediable. Even now, with almost characteristic irrelevance, the histologists describe the effects of intoxications, of fevers, of specific diseases, of insanities by a name, chromatolysis, which refers primarily to changes in these chromatic elements in the cell, which are admittedly of the least immediate importance as vehicles of nerve motion; and it is still to that picturesque and attractive subject that their attention seems rivetted. The chromatic bodies—aggregations of granular matter—in a cell body, change in alcoholism as after other intoxications, and there are coincident changes in the reaction to stains, and in the position of the nucleus and nucleolus. But these are coincidences, not explanations—at least as yet. We still await an account of the changes in the primitive fibrils of which these chromatic changes are a suggestion. We must, therefore, depart from histology to return again to the dynamical idea of mental impairment.*

In a clinical study of mental disease we learn a great deal from an interpretation of the facts in terms of motion. However we may elect to qualify the term, nerve motion is a fact. Also, we may take it for granted that it depends upon the excitability of nerve mechanisms. Further—and this must have a much larger significance than used to be attached to it—it depends upon stimuli; it is essential to the excitability of the cortical mechanisms that they should be constantly reached by a circulation of motion which has been initiated in the sense organs at the periphery. Conduction is the name which is given to the function of nerve fibrils, or paths, in forwarding nerve motion. Discharge is the name given to the function of nerve cells in letting loose nerve motion. Conduction depends upon a release of activity in nerve fibrils, which, however, is less in degree than the energy which is stored in cells, and which is released when they are discharged. These are the data of the dynamics of cortical function; they have been accepted for many years under the guidance of Spencer, Jackson, and many other authorities here and abroad. No one, so far as I am aware, seriously disputes them.

When we come to consider mental disease, or a process of dissolution of the nervous system which occasions mental symptoms, we do well to have regard to two kinds of change

*Stripping of the ampullæ and local swellings of the dendrites, and sometimes of the collaterals, have been described, but histologists are not as yet agreed upon how far these are alcoholic, artificial, physiological, or post mortem.

in the manifestations of nerve motion. There is diminished or lost excitability, and there is exaggerated excitability. In this connection much light has been lost on the subject of mental disease by insufficient attention to the teaching of Hughlings Jackson. He pointed out long ago that, in dissolution of nerve function, we must have regard to the two kinds of lesion and two kinds of symptoms—the primary or negative, and the secondary or positive. A primary lesion is one which impairs excitability, and its symptom is a loss or want of functional activity: a secondary lesion occasions exaggerated excitability, and its symptom is an excess of function. (One fact must be considered which, I think, he did not emphasise. That is the fact that the early stages of exhaustion in nerve mechanisms is always characterised by an excess of irritability. This increase in function may not be what it appears to be; for it may be due to a loss of something in the nature of inhibition, and so explained as a loss of excitability in the higher parts of the mechanism. But, however that may be, the condition is so transient that it may perhaps be ignored, and the fact remains that a morbid change in nerve mechanisms always means a diminution or loss of activity). Further, we must never explain positive symptoms, symptoms of excess, by themselves, but always with reference to the primary lesion which has removed something. The positive symptoms of nerve disease are not only secondary in the sense that they are later; they are secondary in the sense that they are the effect of the primary lesion, are occasioned by it. That remains true, though we admit that, following the primary lesion, changes occur in related mechanisms, which may be held to be a new lesion; for still it can be shown that the later change is the organic sequel of the earlier one.

One is tempted to digress here to show the great importance of this principle as applied to all the insanities, but I shall leave that idea meanwhile. Enough will be said concerning the secondary symptoms of drunkenness to suggest the application of the principle to other mental diseases.

The Alcoholic Lesion a Tonic Depression.

What the exact nature of the primary lesion is which follows an excess of alcohol in the blood cannot now be

demonstrated. The point is that it diminishes excitability. Conduction in nerve paths, discharge in nerve cells, are diminished, and, if the cause persists, are lost. The temporary distress which follows an occasional excess illustrates it. The feeling of well being, which is coincident with complete function, is lost, the higher functions are obstructed, and the irritability which is characteristic of this state may be regarded as the positive (secondary) symptom. In cases of habitual excess these symptoms are more pronounced and more constant. The dulling or blunting of the higher powers runs afoot with an excess of lower function, and that excess is to be interpreted as the result of the withdrawal or loss of the higher activities. As we have seen, the impairment is most obvious in the purposive functions.

This change in the nature of the drunkard, which is correlated to diminished excitability in the dendritic systems, is in all probability a trophic or nutritive defect. We shall leave out of account the notion of the defect of nutrition due to an altered blood state. It is no doubt of great importance that there is so much alcohol in the blood as to interfere seriously with the metabolism in the tissues, including the mechanisms of the cortex. But the mere mention of it is enough; for my purpose is to demonstrate the progressive nature of the alcoholic lesion, and to show that what is called alcoholism has organic continuity with this lesion, and is secondary to it in an etiological sense.

The trophic function of the cortex cannot be understood without a reference to some such idea as has been expounded by Foster. He regards the cortical mechanisms as vehicles of nerve energy which is initiated in the sensory periphery, rather than as sources of energy. Mental processes depend upon currents of nerve motion, which have their direction determined by the pattern of cell connections, but the cells and fibres are not primarily the sources of the activity. Their function is to guide it, to transfer it according to pattern. Such a statement of cortical function does not ignore the nutritional value which depends upon the chemistry of blood and of nerve matter. But the supply of blood may be quite normal and the nerve mechanisms still fail to be normally excitable. For the state of normal instability, which constitutes a healthy excitability of nerve mechanisms, they are dependent upon the currents of nerve motion, which ought to be in constant flux from the sensory periphery, onwards and inwards. In general this idea does not seem to have been grasped; it has not become part of the working theory of practical psychologists; but, so far as I am aware, no one disputes it.

The most easy way in which to consider this function of afferent and onward activities is to regard it as a simple fact that nerve force

—whatever it may be—constantly circulates, just as much as does the blood, with immensely greater rapidity, and with equal quickening power. Unless the supply of energy is efficient and its circulation unimpeded, the functional activity of nerve mechanisms will be impaired, and, at the same time, that of the organs in which the nerves terminate. The metabolism which the blood has made a chemical possibility, is a dynamical impossibility unless the cell and its processes are in that state of mild stimulation which the circulating energy from the afferent avenues has induced. Though there may be no functional activity in the mechanisms of an obvious or voluntary kind, this circulation of nerve movement mildly stimulates them, and keeps up in them what perhaps may be called a shallow metabolism, without which they lose their normal instability. In loss of functional activity, therefore, in states of morbid stability of nerve mechanisms, we must have regard to the circulation of the nerve movement as much as to the blood supply; and, in the cortex, we should have the greater regard to the nervous circulation, because its function is paramount there, according to Foster, which it is not in the lower levels of the nervous system. I shall in future use the word "tonic" to describe the function which is fulfilled by nerve motion in circulation.

The amount of tonic activities in the cortex is undoubtedly very great. We have only to consider for a monent how vast is the number of unnoticed impressions which impinge upon the organs of sense in the course of a day to understand that this is so. We must also assume that the tracks along which they go are as complex and as far reaching as are the connections of the sensory nerves. For, though there may be special tonic fibres in certain highly differentiated mechanisms, the function in general is one which is part of the function of all nerve paths. Wherever an afferent activity from the periphery circulates, there is a path for tonic energy. Some day we shall probably have a much clearer conception than now of the main paths of cortical activity, and then we shall know the course of the tonic streams, and shall be able to fortell the direction and results of ascending or circular or descending degeneration in the cortex; but not yet.

In this circulation of nerve motion the dendritic layers play a most important part. They are to be regarded as highest in the nervous hierarchy; and all onward movement which implies self-consciousness passes through them. If we take a cell in the dendritic system—and for convenience we may take a pyramidal cell whose axis cylinder process reaches to a motor centre—we can have some idea of its tonic connections. Such a cell, or a cluster of which it is one, has connections with all the

organs of sense, and with viscera. From the skin, from the muscles (assuming muscular sense), from the viscera, and from all the special sense organs, tonic currents stream towards this psycho-motor cell. They pass by way of the great sensory tracks, which concentrate towards the centres in the cortex, which represent the senses. In these centres we must assume cells which have processes immediately and directly connected with dendritic structures far and near. But, from the sense organs onwards, the path becomes more and more complex, and more and more plastic. Mind is founded upon perception. Every idea, every sentiment, every purpose, has relation with each of the senses. Around our pyramidal cell, therefore, is a complex network of fibrils, some of which come almost directly, some very deviously, from the sense centres. The tonic function now depends upon the wealth and integrity of the refined structures which I have roughly described. We have traced the current into that fluid medium around the cell, differentiated or undifferentiated, and it must not stop there. If the dendritic processes of the cell are good, they will receive the circulating motion and conduct it into the cell. Following the course of this current onwards, the tonic activity might be traced by the axis cylinder process of the cell to a motor centre, whence it flows onward by the motor nerves to the muscles. Also, the cell may have other efferent processes which are of great tonic value in conducting motion to connected mechanisms near at hand.

This kind of movement is constant, so that we may almost dispense with the idea which the word current suggests, and think of tonic movement as in a constant flux in the dendritic systems. As we have seen, the direction of the movement in the centres of intelligence is neither sensory, in the usual sense, nor motor, but circular.

The Progressive Nature of the Alcoholic Lesion.

We are now in a position to discuss alcoholic dissolution as a progressive disease, and to see why its secondary symptoms are to be regarded as in the nature of a descending or circular degeneration. I would only premise that we must not think of degeneration as formerly—a process of fatty or pigmentary or sclerotic increase; it is a tonic depression much less gross than that.

In the first place, I wish to dismiss symptoms which are the result of gross lesions, such as hæmorrhages or softenings, because these are accidental in drunkenness and not essential, and because the secondary symptoms to which they give rise all have their analogues in what are called functional symptons—aphasia and other paralysis, hallucination and other paræsthesia, convulsions, coma, etc. All that we need say about aneurismal changes, localised hyperæmias, and the other causes of hæmorrhage and of softening, is that they are in part occasioned by the tonic defect which is due to the obstruction of nerve circulation in the dendritic systems. The vaso motor function in the cortex is one which is at least directly related to every other function, and is involved in all general impairments. No one would deny that alcohol is an agent which may directly irritate vessel walls and destroy their elasticity and their strength, but it is probably the depressed tonic condition which determines essential vascular lesions.

One might easily consider seriatim the various secondary symptoms of drunkenness, and show their relation to the negative lesion, but I shall merely hint at most of them, and confine our attention to two symptoms which are sufficiently diverse to illustrate my point fully—Aphasia and Hallucinations.

Aphasia.

Aphasia is a very frequent symptom in drunkenness or alcoholism. It is, however, one which, like many other symptoms, is easily missed in its early stages. But experts will be able to observe in nearly all advanced cases of drunkenness a distinct lessening of vocabulary. Theoretically, it is the last acquired words which are first lost—technical phrases, words which are beginning to have a new and special significance, and other recent words. The personal equation, however, often determines a loss of words which we would expect to be retained. If, in talking to a drunkard, one watches for this symptom, and takes pains to note his vocabulary, one will be able to detect that he sometimes uses a word which the preceding part of his sentence did not lead one to expect, and at the same time, one may notice a slowness and hesitation in speech, as if the patient were feeling his way cautiously to the end of his phrases.

I have been amused to note that this lends a dignity to the style of conversation of a few drunkards, which is rather impressive. One takes them for persons of unusual culture, because they seem to refrain from expected expressions, and to choose rather those which are unusual, or at least unexpected. But, in convalescence, these patients revert to the familiar phrases, and speak with vulgar carelessness. In other cases, and more frequently, the skill in hiding the defect is much less, and the patient is obviously aphasic. Not only does he forget the common names, and still more the proper nouns, but his brain lets slip in their stead names of things and of persons which are quite wrong. In the most advanced cases, language is so defective as to be quite unintelligible.

We are not now considering aphasia which follows a gross and perhaps a sudden lesion, but that which develops as part of a general forgetfulness.

Perhaps no symptom could be chosen which would better illustrate the secondary or descending symptoms which follow upon dendritic dissolution of function than a functional aphasia. I call the degeneration descending, because although the word function is part of mental processes which are central, and whose nerve motion is best described as circular, the function of speech, expressed words, is certainly on the motor side of mind. I shall not presume to explain what the mechanism of the word function is, but a few points in the physiology of the subject are indisputable. We are certain, for example, that the mechanism of words is extremely complex; and the complexity, as always, is both of an extensive and an intensive kind. The centre of a word image must have very wide connections; it must be related to experiences of various kinds whose mechanisms are situated in comparatively remote parts of the cortex; and, at the same time, the ramifications in its immediate neighbourhood must be very intricate. The image of any word in common use has connections with those of other words which relate to very remote subjects, as, for example, the word "smoke," which must be organically related to conceptions so remote as railways, fire-places, tobacco, and factory chimneys; but it must also have very intricate connections to represent refinements of meaning and various qualities of smoke, such as those which relate smoke with steam or with flame, brown smoke with

yellow smoke, etc. Besides being complex, the mechanisms of words must be very plastic or formative, because we are liable to use a word in a new connection or in a new sense every day. We must add the usual comment that mechanisms which are complex and which are plastic are also delicate. Their plasticity and their intricacy imply that they have a large proportion of refined or minute structures in their pattern, and, apart from the fact that such structures are usually not well protected by any covering from destructive agents in the medium around them, we must take note of their functional accessibility. A structure which is easily accessible, which is open to manifold forms of stimuli, is a structure which is delicate, especially in respect that it is liable to trophic changes.

If we conceive of word mechanisms, not as simple and isolated centres, each having a pattern which answers to its particular word, but as having connections with the mechanisms of meanings, we understand that the word function is a most important part of the mind's frame work. We should think of a word centre as one which has very wide beginnings or radicals in the mechanisms which represent meanings, and as gradually concentrating towards the psycho-motor centres, and onwards, with still more concentration of the paths, to the motor centres. From these to the nerves which supply the vocal organs and the tongue and lips, etc., the path is still more narrowed. The tract of any one word then may be likened to a rope which, if we trace it backwards from the nerves of articulation, splits up into several strands, and, as if these were teased out into the most minute threads possible, is found to begin in innumerable refinements.

If we leave this notion of any particular word, and think of the word function as a whole, we are bound to conceive of it as one which has rootlets spread all over the dendritic layers of the cortex. Its connections are so vast that we cannot but suppose that a failure of conduction in these rootlets must have a most important effect in the nature of a descending tonic degeneration of the motor tracts which end in articulation. This tonic lesion, whatever its histology, is one which impairs the excitability of the nerve mechanisms all along its path. And so we find that the stimuli which ought to arrive at a given word centre are obstructed in the higher reaches and fail in intensity. Not only so, but the

centre itself is abnormally stable because of the tonic depression, and fails to react properly to any stimuli. That is the dynamics of slowness and of loss of speech. In many cases we may regard it as functional in the sense that there is no obvious lesion, though that is a term which is likely soon to disappear from scientific language. But, I repeat, the same descending degeneration which occasions functional aphasia may predispose to gross lesions.

Simple aphasia is secondary to the essential, the dendritic lesion in the mechanisms of the highest mental functions. But, from the point of view of speech, the lesion is primary; it has negative results—a loss of words. There are other secondary symptoms which are positive, such as metaphasia —the occurrence of wrong words. These must also be explained with reference to the primary lesion. Here, again, we have to refer to the personal equation, to explain why the path to the remaining words in a drunkard's vocabulary should still be open. It may be from a personal idiosyncracy, or it may be due to an earlier and irritable stage of nervous impairment, that the patient says that it is "pelting cats and rabbits," when he speaks of a downfall of rain. The rabbit centre has survived longer than the dog centre, perhaps because the patient's experience has led to a deeper organisation of the former; or perhaps it is in the earlier and more irritable stage of degeneration from some fortuitous cause. Anyhow, metaphasia is a secondary and positive result of the loss of proper function. Motion, which should have found its way to the centre for the right word, has been obstructed in its path and has diffused to the wrong centre. The excessive irritability, if it exists, and the diffusion, are alike the immediate results of the tonic impairment which has progressed from the higher mechanism to the lower.

So simple a symptom as aphasia suggests the sense in which drunkenness is described as a progressive lesion, and prepares the way for a consideration of more difficult facts. Hallucination, for example, is a much less intelligible symptom.

Hallucination.

As before, we must first dismiss hallucination, which is the result of gross lesion. There are, no doubt, cases of

hæmorrhage and of softening, and perhaps of localised congestions or anæmias, which occasion hallucination as a distinct secondary symptom in alcoholism. More than that, we have affections, such as peripheral neuritis, and it would be strange if there were not minor affections of a similar kind, that is, inflammatory and exudative, which, without reaching the stage when an acute general condition supervenes, still excite paræsthesias and hallucinations. (Although the distinction is not carefully observed, the term paræsthesia ought to describe a mistaken interpretation of a stimulus; when the patient refers it to a wrong place or even to a wrong sense; and so it corresponds to "illusion." Hallucination describes a false perception or sensation which arises in consciousness, without any stimulus from the environment which we can trace; it is supposed to imply an automatic activity in the sensory mechanisms, but is in reality almost always reflex. Delusion is a false belief, not necessarily referring to sense impressions).

It is a common experience of people who often drink too much, that singing in the ears, whistling sounds, the sound of bells, break upon their attention even when quite sober. Minor visual hallucinations also occur, though they are not so commonly described. Or there may be skin hallucinations, such as a feeling of an intense cold or hot spot, of a drop of liquid trickling over the skin, of an insect crawling on it, etc. Later, the hallucinations become much more insistent, and the patient may hear intelligible words which no one spoke, see animals which do not exist, and even suffer pains which he describes as "like the torture of the damned," for which we can find no peripheral explanation, and which *may* be a hallucination. (Compare pain suggested under hypnotic influence).

Any one of these hallucinations may be due to a gross lesion—vascular, exudative, or inflammatory. But, if so, the lesion is not to be regarded by itself, an area of attack remote from the primary lesion and independent of it. It is a direct result of the primary lesion. The primary lesion predisposed to it and determined it by causing a tonic degeneration in the vaso-motor or allied mechanisms.

I must make it clear how intimate I regard this relation between the primary and the secondary lesion. It is a relationship which is not at all the same as when a drunkard falls into a fire and is burned, when one might say that the drunkenness determined the burn as a pre-

disposing cause. Nor is it the same as when a drunkard sleeps in a draught and suffers a pneumonia from a chill, which would not have hurt him had he been a sober man. The gravity of pneumonia in alcoholics is no doubt partly due to descending trophic impairments, but the relation between the primary lesion and the mechanism of repair in the lungs is not nearly so direct or so intimate as between the lesions which we are now considering. Hallucinations, be it observed, are cerebral affairs, and the interconnection between the sense centres and the rest of the cortex is so close as to warrant us in regarding the causal relation between the primary and the secondary lesion as a very intimate one. Accordingly, hallucinations which are caused by a more or less gross lesion in the cortical, or even in the lower level of the auditory tract, must be held to be secondary to and occasioned by the primary lesion in the highest dendritic structures.

In considering what are called *functional* hallucinations, we are face to face with very complex results of the dendritic obstruction. The onward movement of the auditory activities is delayed in the highest levels, and there are effects to be considered behind that obstruction, beside it, and beyond it. The lesion, we repeat, is understood to be one of the mechanisms of the purposive functions.

The effect on mechanisms *behind*, that is, on the sensory side of the lesion, is best understood if we conceive of a mass, say, of auditory movement initiated in the Organs of Corti and spreading onwards. It is not easy to conceive of the stream which passes without our knowledge from the manifold sound waves in any ordinary environment; but that it does pass onward we cannot doubt. Let us think of it for a moment as occurring during an orchestral performance. If, in the middle of the performance all the onward fibrils high up in the auditory tract should suddenly fail to be conductive, what would be the effect on the lower parts of the tract? A mass of movement has been spreading up the auditory nerve through the auditory centres and onward to the wide cortical areas which represent emotion, thought, and purpose. It has been diffused through these and beyond them to the outward paths which represent conduct. It has a tonic effect all along its course. But suddenly a break occurs right across the track in the highest, the intelligential areas. The orchestra is still pouring in its waves of sound, the ear still receives them, they still have an effect in consciousness which perhaps is that we are aware of a great mass of sensation; but it is an experience which brings no knowledge, no appreciation, no feeling, nothing more than simple sensation. Such an

effect it is impossible to conceive. But our present purpose does not refer to conscious effects. What is the effect on the tone of the lower auditory mechanisms from the continued pouring into them of currents of movement which are dammed up in the higher centres which fail to pass them on? I do not think anyone would deny that such conditions will in a short time lead to an impairment of the tone of the mechanisms which are receiving stimuli in excess of onward reaction. At first the excitation probably increases excitability, and that may account for the hypersensitiveness of alcoholic patients to sounds, which is a very common symptom; and another kind of symptom may result, which we can call over-attention to sounds. But the sounds around the patient do not cease, his ears still receive them, and the obstruction ahead remains. And so over-excitability diminishes, and very soon the auditory mechanisms become impaired in conductivity, which is the invariable result of all exhaustion of nerves. (This raises an interesting point as to what constitutes exhaustion. I do not wish to do more than suggest the question. The first principle of healthy activity is, that there must be some kind of balance between excitation and reaction. Excitation, which is pleasant and healthy so long as there is a sufficiently extensive onward movement, becomes painful and unhealthy when that is stopped. Sensory experiences are painful when stimulation is in excess, or when there is a constriction or obstruction in the field of consciousness. Ward's account of feeling in the article, "Psychology," in the Encyclop. Brit., will be found instructive).

Continued sounds, then, which do not have an ample onward flow, exhaust the lower mechanisms and impair their excitability and conductivity. That is another way of saying that the obstruction spreads backwards from the highest areas into the more peripheral in the sensory tracts. Here, then, we obviously have a progressive lesion. Still confining ourselves to the sense of sound, we have to note that the dendritic impairment has occasioned a lower impairment, of which the effect is to exaggerate the loss which already exists. Movement was being obstructed in the dendritic systems, obstruction has spread backwards, and now fewer of the tonic currents reach the dendritic systems. To use a figure, the output from the mill was first diminished because the mill was grinding badly; and now the

loss is exaggerated because the grist does not come to the mill.

If we now for a moment consider this effect as occurring in all the sense organs, we can realise how great a tonic defect results from the backward spread of the primary lesion.

Some hallucinations are very analogous to certain motor symptoms, of which metaphasia is a type. This loss of excitability in auditory mechanisms is greater in some parts of the centre than in others. Just as in aphasia, certain words persist when others are lost, so in auditory impairments some sounds are lost and others persist. It may be, for example, that the cells which represent the sound of firearms succumb earlier than the cells which represent the sound of bells. When the waves initiated by the firing of arms reach the auditory centres and do not find free outlet, we have to consider the results of their diffusion. (We do not seem to be justified in supposing that a wave of nerve motion ever turns upon its course and goes backwards). Diffusion may be into the mechanisms of bells, and gun-firing may result in consciousness as ringing, or any other similar effect may be produced according to the constitution and experience of the individual. As a rule, the mechanisms which represent the sound of words, persist for a long time; which is what we might expect when we consider how deeply organised the mechanisms of these sounds must be to which we have been so long and so constantly accustomed. The word-sound centres, then, may be in a state of excitability when other sound centres are impaired, and so hallucinations of words may be explained as the results of diffusion from obstructed paths.

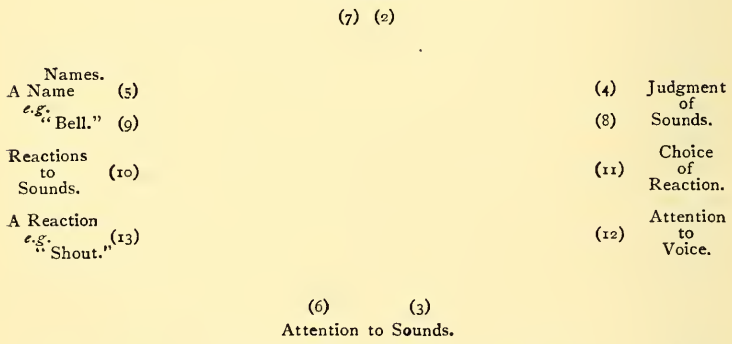
We have, however, to take into consideration here again the possibility of a fulminating or explosive lesion. I do not think the generally accepted idea of a fulminating centre, as one which goes on gathering energy until it automatically discharges it, is satisfactory. There is probably no such thing as a strictly automatic activity; so called automatic effects are probably always reflex reactions to stimuli. The peculiar feature of fulminating discharges is not that they occur without anything to excite them, or even that they are so easily excited. An explosive discharge does not seem to occur any more easily than that which occurs, for example, in habitual acts. If I am running through the letters of the alphabet, the letter M follows L with a facility which does not seem to be surpassed by the facility of discharge in explosive activities. Fulminations are not very easily excited. If our supposition is correct that currents constantly diffuse

all over the cortex, without our consciousness, there is nothing new or strange in the "explosion" of a fulminating centre. We are not aware of any stimulus which released the energy, but that is generally so in all cerebral activities. The peculiar feature of fulminating centres would seem to be that they do *not* easily discharge. The next thing about them is the intensity or depth of the discharge, and the last thing is the repetition or continuance of the discharge.

It is a very dangerous thing to push analogies far in trying to explain physiological facts, but we are at least certain that there is some function of cells to which we allude when we speak of their "storing" energy. I do not pretend to have any account to offer of how they do it, but it seems certain that nerve cells are accumulators in some sense or other. Suppose that a centre is going to fulminate so as to have the effect in consciousness of a clap of artillery, what are the conditions of it? We are generally led to suppose that the part of the mechanisms which is at fault is on the afferent side—that there was some flaw which rendered the artillery centre too accessible. That seems unlikely. The other idea is that the centre was in some sense too highly charged. The idea seems to me very vague and not easy to understand. It would seem improbable that an epileptic cell really has more energy than a normal cell. Whether we think of stored energy as chemical or vibratile, or any other kind of energy, it seems hard to understand how a cell can ever become overcharged. If you overfeed the cell with the chemical ingredients which it is supposed to anabolise, or if you supply it with an excess of the vibrations which it is going to store, it seems more likely that failure of anabolism or of charge would result. Some light on this very difficult problem may be gained, I think, if we consider the subject of diffusion and obstruction more deeply. This is not the place to enlarge upon this speculation, but I would offer the suggestion that fulminating cells are mechanisms which have failed to let pass the currents of activities which constantly reach them; that they are mechanisms which are difficult of excitation; that when they are discharged, by diffusion of stimuli or otherwise, they discharge deeply, that is, they go on discharging; and that the depth or repetition of discharge may be due to obstruction of outlying and onward paths, so that each discharge, while it may send strong currents along normal paths, also sends strong diffused currents round the circular paths, close to them, which redischarge the cells. The conditions of fulmination in cells would thus seem to be in their immediate connections—a confinement of motion around, rather than an excessive instability in, the cells. Whatever theory we profess, the fact remains that hallucinations may occur which we attribute to a fulminating lesion, which may be characterised by great intensity, as when a patient cowers under the noise of thunder or of artillery in his head; or by repeated discharges, as when he hears the tinkle, tinkle, tinkle of a bell which goes on ringing for hours. And whatever theory we adopt as to the nature of these discharges, we must refer them to the primary dendritic lesion of whose spread they are the result.

We now come to what is after all the most important fact in hallucinations—the lesion which impairs the patient's judgment of sounds. Paradoxical as it may seem, the most important part of the mechanism of sound-perception is

what would formerly have been called a motor path or moto-sensory. At all events it is efferent, and also afferent, if we consider ourselves placed within the centres of intelligence. It reaches down to the auditory centre and returns upwards again. This kind of path, from the highest centres downward and up again, is what I have referred to as a circular mechanism; a lesion in it may be called a circular lesion. A brief consideration will demonstrate why it deserves that name. And probably it will be more obvious if we make the demonstration diagrammatic, always presuming that we attach no topographical significance to the diagram, and also presuming that, like all other diagrams, it is quite misleading in its simplicity.



The names in this diagram refer to stages in a mental process. Numbers have been placed before them to lead the eye to them in order of the onward activity, which occurs during a very simple process of listening to and answering a sound. If the student cares to take the trouble he will find it useful to use a pencil and draw a line along the route. Here are the stages of this much too simplified process.

(1) I hear sound. We may ignore this stage as too general and too elementary to have a place in an educated consciousness.

(2) I hear *a* sound, a particular sound. I do not yet know what sound.

(3) I attend to the sound.

(4) I judge the sound.

(5) I name the sound. All such judgments are by naming.
(6) I attend to confirm the judgment.
(7) That excites the centre of hearing again as I "prick my ears" to hear exactly.
(8) I confirm my previous judgment.
(9) I say inwardly, it *is* a bell.
(10) I am on the point of moving.
(11) I choose what I shall do.
(12) I prepare to shout ("prick" my voice).
(13) I shout.

All diagrams of living processes are delusions and snares of the most insidious kind. They seem to express the thing so simply; but they always do not express the facts. This diagram will help the student to have some conception of a term, such as "circular," when applied to a mental process. But as soon as he knows what is meant the student should forget this and all other diagrams. Only observe that, in any mental process, however simple, the current of activity is circular in the sense that it comes back again to the same centre, though to a different part of it, and from a different direction. The activity is not really circular: it is a to-and-fro current, a hither-and-thither current. For names are almost as misleading as diagrams.

The centres which occur in the diagram are not stations along the course. They merely mean that in such a process as that to which the diagram refers, if you analyse what you do, you are aware that you do all these things which are numbered in the above statement. Anyone may split up the process into fifty other stages, he may come round to the same act fifty times in the process. But, if we take this as a simplified mental sequence, we may imagine a physical process coincident with it. If a line has been drawn from number (1) onwards through all the others, we get a "pattern" of the nervous activity. And now, let the student make the diagram a little less untruthful and, at the same time, not so clear. He has a line, a single line, onward through these various centres. But we have every reason to suppose that nerve motion never confines itself to a single line, but that a great number of currents are active simultaneously. When I hear a sound, a current passes to the mechanism by which I attend to the sound. We have pencilled that in. But, simultaneously, currents pass from the centre of sounds to every other centre in the diagram. My centre for the names of sounds is mildly stimulated every time I hear a sound; so also is my centre for judging sounds, that for response to sounds, that for choice of response to sounds. Every time I listen to anyone speaking my brain has currents passing to my centres for speech. Every time I discriminate between two sounds, currents are passing from my centres of choice to every other centre to which they are related, as well as to those centres whose conjugate activity results in

discrimination. Take coloured chalks and draw a series of lines from each centre in the diagram—a characteristic colour for each—to all the other centres. Blue lines, we shall say, run from the centres of sound to each of the others; red from the centre of attention to sound; violet from the centre for names, etc. That is much more like what actually occurs in the brain during any mental act or process. And now, having this motley pattern of lines and colours, draw again more heavily the original line, to represent the order in which the most active of these currents go, and you have what we call a "pattern" of a nerve activity.

From the point of view of mental physicians, sensations as a function are of secondary importance as compared with attention to sensations. It is the part of intelligence to listen to sounds, to notice them, to discriminate (choose) between them, to interpret them, to answer to them. Supposing, then, that for a moment we are standing in the centres whose function is purposive or directive, we have here a great series of paths whose direction is efferent. The nerve motion which is in activity when we listen to a sound is efferent from the higher to the lower mechanisms. The paths which guide these efferent activities, and the cells along the course of them, must be supposed to depend for their trophic supply upon the centres which are above them. We may call this a descending trophic influence if we please, and the lesion of the tract a descending lesion. But the tract is one which leads currents back again to the centres for interpretation of sounds; and it is desirable to speak of the lesion as circular. Anyhow, it is one which spreads directly from the primary lesion. As was said, it is such processes as the interpretation of sounds which are of real importance in mental disease. If a man receives a blow upon the head, and has a singing in his ears, and sees stars and constellations, we do not speak of him as having hallucinations. But when a drunkard hears the waves of the sea ring bells, when he sees stars in his pillow and tries to put them out, the lesion which makes the false perception important is a lesion in the mechanisms of interpretation. That is a lesion which diminishes the excitability of some cells and increases that of others. It is a lesion of omission and of commission. A discharge which ought to occur so that the man "recognises" a sound, fails, and, instead, some neighbour cells are, by diffusion, discharged, and false recognitions result. This is a bell, he says; he should have said this is a whistle. The wave from the sound of a voice reaches the centre for thunder, where it never should have

penetrated. He hears bells as voices speaking, and the wind tells him stories. The feature of such acts is that there is loss of power in the mechanisms of interpretation and of correction.

To follow this idea of the progressive nature of the lesion of drunkenness further, and to consider other secondary symptoms in detail, would be to break the promise that aphasia and hallucination would be considered sufficient to illustrate the whole subject. But it may not be too great a liberty to suggest in the slightest way possible the working out of the interpretation of alcoholism in a few other salient symptoms.

Mental states should all be considered in the light of a circular lesion, such as has been suggested. Stupor is a very deep impairment of purposive functions occasioned by the negative (primary) lesion. All obvious loss of control or of direction, from impulsiveness down to incontinence of urine, implies a spread of the primary lesion. The failure of objective relation in melancholia, of control in mania, of corrective judgment in delusional states, of retentiveness and of recollection in amnesia, of nearly all mental activity in dementia, are negative symptoms occasioned by the primary lesion. Coincident with these, there are always positive symptoms—grief, excitement, violence, false belief, mistakes in recognition (a false sense of identity), aimless wandering, extravagance, mistaken hope—and they are to be interpreted as due to the diffusion of obstructed motion, to its concentration or confinement in certain areas, and perhaps to its excitation of mechanisms rendered abnormally unstable. But, whether negative or positive, these symptoms are due to tonic changes which have progressed from the dendritic affection in the centres of the purposive functions.

All sensory symptoms in the usual sense of the word can be accounted for in the light of what has been said about hallucination. Losses of sensation, which are a negative symptom, are due to a failure of excitability from causes which have been suggested. Excesses of sensation, false perceptions, and such like, which are positive, are due to diffusion, and perhaps to a fulminating lesion.

Simple loss of muscular power, which is very common in drunkards, loss of movements in any direction, are negative symptoms to be explained like the others. Tremors and spasms, and all that goes to constitute the excesses of

activity in speech and other movements, are positive signs due to the same causes which determine other positive activities. (Convulsions, which are perhaps the most difficult of explanation of all symptoms of cerebral disorder, *seem* to demand a fulminating lesion, which occasions undue instability of the intrinsic mechanism of the motor cells. It is the consideration of convulsions which suggests the importance of the hypothesis of fulminating lesions in general. Yet it is not impossible, even in explaining convulsions, to do without a reference to such a lesion. We might explain them as due to a loss of inhibition, and to an obstruction of the paths which would normally lead the nerve movement past the fulminating cells, to a concentration of currents in their afferent paths, so that they are constantly receiving stimuli which discharged them, for, after all, convulsions are not unlike the violence of mania. Whatever the explanation of them as regards the intrinsic mechanisms of the discharging cells, the lesion is a positive one which is secondary to the dendritic lesion).

I am unwilling to press this subject beyond its proper limit, and shall not insist upon the importance of the tonic degeneration in the case of alcoholic affections, which are not nervous in character. No doubt the tonic depression does predispose to visceral lesions; but the visceral lesion is not a direct continuation or spread of the primary lesion. Visceral affections are therefore, in my opinion, not an essential part of alcoholism, and indeed we find many cases in which they do not obviously occur. They are rather in the nature of accidents or complications.

SUMMARY ACCOUNT OF DRUNKENNESS AS A PROGRESSIVE DISEASE.

Before going on to therapeutic considerations, I think it may be of value to summarise what has been said in as clear, concise, and dogmatic terms as possible.

Drunkenness and alcoholism are one and the same disease. The practical diagnostic sign of drunkenness is that the patient cannot control his habit, and that can be proved by fair and conclusive experiment.

Drunkenness is a disease which primarily affects the purposive functions. It spreads so as to involve parts of all the functions of intelligence, and continues until the motor and sensory functions are also assailed. At the same time it predisposes the patient to visceral disorders.

The lesion of drunkenness is in the nature of a tonic degeneration, which begins in the highest dendritic systems of the cortex, and may be regarded as the immediate effect of alcohol on the minutest structures in them.

The dynamical effect of the lesion is to reduce the excitability of the cells and fibres involved, and to lessen both conduction and discharge.

This lesion occasions deeper lesion, because the tonic depression impairs the physiological resistance of the mechanisms to alcohol.

The lesion is progressive in its nature, given that the cause persists.

The tonic depression spreads in the direction of the trophic currents, and can be conceived of as an ascending, descending, or circular degeneration.

The primary or negative lesion, in whatever area it appears, occasions negative symptoms—a functional paralysis, a loss of power.

The loss of higher power impairs the lower mechanisms, and this secondary, positive, lesion is evidenced by excesses and misdirection of lower functions.

However deep the lesion spreads, the primary symptoms remain, and become more marked.

The effect of this dissolution of function from above downward is a reversal of the evolution of character, so that the patient sinks to the level of a being of a lower order of intelligence.

This reduction of character can be described under a general name, such as childishness or puerility.

THERAPEUTIC CONSIDERATIONS.

When we speak of the drunkard as reduced to the level of intelligence of a lower animal, we do not imply any disrespect, such as when a man or woman is spoken of figuratively as a beast. Rather, the statement must be held to be an attempt to define the status of the drunkard from the point of view of an intelligent consciousness. And no kind of difference is so obvious when we contrast the intelligence of a man with that, say, of a horse, as that the horse is much less purposive. The lower animal is much less self-directed, has much less regard to ulterior ends; its acts are the outcome of habits and of instincts; and, most important of all, we do not attribute to it any moral responsibility. Now, although I do not for a moment mean to imply that a drunkard is to be regarded as altogether like a lower animal, there is no doubt that he acts with the same kind of consciousness as an animal much more frequently than normal persons do. Far more of his acts are unreasoned, not deliberate, not even voluntary, and far more of them are irresponsible. In this respect he is comparable to a child and to an uncivilised being.

The irresponsibility of the drunkard has at last been recognised by Parliament, and the "Inebriates Act," 1898, puts drunken criminals on an entirely new footing. "Where a person is convicted on indictment of an offence punishable with imprisonment or penal servitude, if the court is satisfied from the evidence that the offence was committed under the influence of drink or that drunkenness was a contributing cause of the offence, and the offender admits that he is or is found by the jury to be a habitual drunkard, the court may, in addition to or in substitution for any such other sentence, order that he be detained for a term not exceeding three years in any State inebriate reformatory, or in any certified inebriate reformatory, the managers of which are willing to receive him."

This is a concession of the most momentous significance. Drunken-

ness is a fact which puts a new complexion upon all crime, and the act directs that the jury shall first try the criminal for his crime and, if he is found guilty, shall go on to try him for habitual drunkenness. Then, if the jury finds him to be a drunkard, the court may order his detention in a retreat for three years. Obviously the implication is that the drunkenness modified the man's responsibility for the crime, and he must be treated for his drunkenness so as to give his moral nature a chance of recovering a full sense of responsibility before he is set free by the court. And, moreover, in a later clause of the Act, we find that crimes of drunkenness, if often enough repeated, bring the drunkard within the act and render him liable to the three years' detention. That clause refers to persons who have been four times convicted of drunkenness within a year. When the criminal reaches the retreat he is called a "patient." The Act says, "The expression 'patient' shall mean a person who has been admitted into a retreat, and whose term of detention has not expired or been concluded by his discharge."

This Act, then, implies that drunkenness is a disease. Its explicit definition of the word "patient" implies that. Further, it recognises that the disease is one which attacks the moral functions, because it refers only to persons who have become criminals, and it virtually says of them that their moral nature is invalided and requires a period of treatment of not more than three years' duration. And lastly, it provides for this moral malady a treatment which is unusually severe —more severe than the treatment of neurasthenia or of melancholia. We cannot be too grateful for legislation so enlightened, and we cannot do better than put into practice, in private, this principle which the law upholds. The drunkard ought to be regarded by the physician as suffering from a peculiarity which deprives him of both the responsibilities and the privileges of the normal person. One cannot say anything of more value, one can only go on saying it until, perchance, those in charge of drunkards will perform it—Treat the drunkard as a child. A puerile drunkard must be dominated, prevented from harm, and guided with as much consideration and care, but with as much firmness and as much disregard of feelings as people show who wisely manage children. To carry out such a programme demands much fearlessness on the part of relatives, but it will be much easier now, since the drunkard will realise that the law is close behind him. A single slip into crime—and such slips are extremely common—may at any moment bring him within reach of an Act which may lead to a term of three years in a reformatory. To prevent that, and to avoid the disgrace of even an unsuccessful attempt to prove drunkenness, the drunkard may be taught to submit to wise direction.

Alcoholism is a disease which, on an average, may be said to have taken from three to five years to develop. All these years the tender structures of the cortex have been deteriorating in one realm after another. It is conceivable that, given total abstinence, there is some kind of medical treatment, perhaps a drug, which will quickly restore the injured tissues or lead to a rapid development of new tissue

which will take their place. The drug has not yet been described. But to do what we suppose it might do is the aim of all rational treatment of drunkenness. Roughly speaking, the cure takes as long as the disease. When a patient comes to a retreat, and remains, say, six months in a life of total abstinence and of unusual regularity, his cure, I think, has been well begun. He has learned the most important of all lessons for him—that his self-direction has failed; else surely he would not submit to the direction of those under whose authority he has placed himself. By degrees his brain learns the value of discipline, and the patient becomes a man of regular habits. That is, the regularity or discipline of his life has become organised in his brain patterns. The grosser secondary symptoms, if they exist in his case, require only elementary and routine treatment. Most pronounced aphasia, hallucinations, tremors, convulsions, functional paralyses, disappear as a rule rapidly under a treatment of abstinence from alcohol and a mode of life which directly feeds the tonic streams of the cortex. The character of asylum treatment for drunkenness may be summed up in saying that it braces up or tones the nervous system and that it disciplines the moral nature. Still, at the end of their term, most drunkards are lacking in that quality of brain which I have spoken of as the initiative function. That was first and most deeply involved in the disease, and it is the last to be influenced by treatment.

Whether a retreat or asylum can be conducted so as to provide sufficient discipline and at the same time to give the necessary opportunity for initiative is, I think, an open question. The task is certainly very difficult. And that leads me to express my deliberate conviction that most cases of drunkenness are not benefitted by a prolonged residence in an institution where the patient lives a life which cannot be described as free or independent. The atmosphere of an institution is not one best calculated to restore the positive side of character. It is too much a life of negation. Idleness is a temptation; and the incentives to work in a retreat are not those which most men find attractive. Social life is also hampered, because the people in an asylum, and still more those in an inebriate home, are not likely to be permanent friends of the patient. In other relations the same difficulty arises. The drunkard requires a larger life, a busy life, a life of interest and of enthusiasm,

if that be possible. And therefore, when his brain has learned to do without alcohol, when gross symptoms have disappeared, when discipline has been established, the sooner he goes out from the institution the sooner will he find a chance to grow.

As a rule the return to a full and free life should be very gradual, and if relatives and friends are careful and not weak, it seems to me that many drunkards may be recovered. I shall only add that the greatest security seems to me to follow from the development of some strong personal influence over the patient. It is always my practice now to try to induce the patient to put himself under the special care of someone whom he respects, and who is wise. He still understands that he must not entirely trust to his own judgment. In all relations of life save one he should be encouraged to stand upon his own feet. But, in this one matter of his special weakness, the word of his appointed counsellor must be law. Explicit or frequent reference to the past trouble is not to be advised. But his friend must guide the patient with a view to it. He must think out schemes for him which he knows will lead him into an interest and perhaps an enthusiasm as remote as may be from the old kind of life. And, when necessary, when he learns that the patient is doing something which has immediate danger, or is drifting into purposelessness of any kind, he must step in and firmly forbid it. The power of any one to whom the patient has voluntarily and explicitly given the charge of his soul may be quite complete. It is comparable to that which a hypnotist can exercise over a patient—it is absolute, so long as the dictation does not imply a transgression of the conditions which were implied when the bargain was first struck. And so the friend, if he is wise, will never interfere except to some purpose. He will, if he is wise, exact implicit and full obedience every time. If it be objected that this lays too delicate or too responsible a duty upon an outsider, one can only reply that it is what nearly every professional man has to do to some extent every day. And if it be objected that the drunkard will not submit, one can point to many cases where some such beneficent tyranny has been proved successful, and that there are now reasons more than ever why the patient should accept it and abide by it patiently until he has established his right to be independent of it, if he desire to be so. That, however, ought not to occur;

for this personal control should be gradually lifted off the patient until finally nothing of it remains except the power to resume it.

One point seems worthy of special mention because of its importance, and because one hears expressions of what are, perhaps, unjustifiable opinions about it. One has known many drunkards who, after making an apparently good recovery from the habit, suffer a breakdown. There is, in my opinion, a great deal of wisdom in the injunction that a man who has once been a drunkard ought, for many years at least, to abstain from alcohol entirely. But there is an opinion abroad that a relapse of even a single night will undo the good of many months of abstinence. It is difficult to believe that that must needs be so. From our physiological point of view, indeed, we must incline to deny it dogmatically. Supposing that a brain has suffered widespread, though, perhaps, slight degeneration from years of alcoholic excess, and supposing that, after six months' abstinence, the signs of it are clearing up, we must deny that a short drinking bout can induce the pathological condition as before. But, again, we must consider the question from another point of view. The effect of a single relapse upon the will of a convalescent drunkard will be very much just what he has been taught to expect. If he believes that one such error is irretrievable and fatal, it is likely to come near to being so. If, on the other hand, he regards it as a casual interruption in a recovery which he sees himself achieving every day, and if he only takes it as a sign that he must make a new effort, it is likely that an occasional relapse will do very little harm. At the same time, we cannot disregard the possibility that intoxication in a convalescent drunkard may renew in him the fascination which mastered him long ago, and which for months he has been trying to forget; as when a man might lose his senses at a fresh sight of a face which he had hoped never to be charmed by again. And so it is probably wise to have an understanding with the patient, that if a relapse does occur, it must be held to demand some restriction of his liberty and some access of outside control.

When a patient is being watched over by a friend, when he is being led towards some new purposes for which, perhaps, he conceives something like enthusiasm, he must at the same time learn, by every means within his reach, the self-direction which will bring every activity of the day into line with his ambition. Suppose, for example, that one who has been a drunkard finds himself in the way of making money, sees a chance of establishing his credit, and has a hope that he may do well by himself, by his family, and by his neighbours; he will still fail unless he sets about to rebuild his broken will. It is not enough to merely conceive a purpose and a prospect. To have any secure hope he must school himself each hour to do what he has planned to do. The drunkard, more than most men,

lives fortuitously, does just what at the moment it is most easy and most pleasant to do. That must all be changed. In the beginning of his convalescence he should have certain definite tasks allotted to him for specified hours in his day, and pressure should be applied to him to induce him to do them. Later, when he has gone further away from our immediate control, he should still be encouraged by all possible incentives to order his daily life in accordance with his general purposes, and not merely to let each hour take its chance. But here, again, the patient's attention should always be directed to the good purpose of such a discipline rather than to the past failures which have made it necessary.

We are often told, more or less politely, that we do nothing to cure drunkards; and, indeed, we are bound to feel sometimes that we are not doing very much. But such as it is, I think we can claim that it is rational treatment, that it fits with what we believe concerning the nature of the patient's trouble. In concise and summary form, the following are the best suggestions I can give as to what treatment drunkenness requires.

1. To repair the patient's physique—

A full but simple diet, strictly non-alcoholic from the first. Milk and water or milk and soda we find best for the thirst.

Long hours of sleep, especially in the early night. When hypnotics are required, let them be varied, and, if possible, do not let the patient know what he is having. Full doses of bromide are most useful.

Promote all the excretory functions carefully.

Attend to any visceral derangement in the patient; but, as a rule, it is only necessary to withdraw alcohol and to attend to ordinary rules of hygiene.

Insist upon an increasing amount of muscular work in proportion to the patient's strength.

2. To repair the patient's purposive defect—

Meet his defective initiative by leading him on to some scheme of work of as wide an interest as he can appreciate, and, as that will not be sufficient incentive for some time, select someone who will acquire a strong personal influence over him. Let that personal interference be diminished gradually.

To repair his defect of discipline, give him a time table or programme, in which each hour of the day is fully occupied either with work or with amusement, and insist upon its being followed out faithfully. To accomplish that, some feasible penalties must be devised and used.

PART II.

ALCOHOLIC PREDISPOSITION.

TYPES OF ALCOHOLISTS.

TWELVE CASES OF DRUNKENNESS, NOT ALL PECULIAR, CONSIDERED ESPECIALLY FROM THE POINT OF VIEW OF THE QUESTION, WHAT KIND OF MEN AND WOMEN ARE PREDISPOSED TO ALCOHOLISM? AND INCLUDING A VERY EXCEPTIONAL CASE (TWELFTH) ILLUSTRATING AN ATTACK OF VOLUNTARY OR CONSCIOUS MANIA.

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ALCOHOLIC PREDISPOSITION.

The Alcoholic Diathesis.

In the following pages twelve cases of drunkenness are considered. Nothing guided me in selecting them except simply that I found them specially interesting. Enough has been said about the general nature of drunkenness to make it unnecessary to point the moral again in reciting the history of these cases. Rather they will be found to illustrate a subject which was practically interesting me when these cases were admitted—what manner of men and women become drunkards. Among all the important considerations which a study of drunkenness suggests, there are few which are of more consequence to society than this. When I began the enquiry, I was inclined to believe that the average drunkard was congenitally weakminded, and I was prepared to find some common character amongst all drunkards, some point in temperament and in diathesis, which might be useful as a premonitory sign. But the result of my enquiry has been all the other way. What we may call Low-class Drunkards are probably moral imbeciles to a greater or less degree. But the average drunkards, who are in a large majority, are neither more weakminded nor more strongminded than their neighbours, so far as one can judge. Drinking is so easy, and the effect of it so pleasant, that it readily becomes the resort of all who are from any cause tired, or depressed, or hungry for excitement.

There is certainly this to be considered, that, in a well-constituted mind, there is a wholesome dread of drunkenness which enjoins great caution and prevents excess. People who become drunken might be supposed to lack that; but, on enquiry, we find that many, especially of the High-class Drunkards, are the victims of unfortunate circumstances which remove them from what one may call a normal social incentive. These cases, and nearly all cases, suggest many

things and prove very little. I shall be satisfied if, in the minds of students, they raise questions without answering them.

I need hardly say that the numbers used here as names are invented for the purpose of misleading anyone who tries to establish the identity of any of the patients described. I have gone further, and have even falsified some of the unimportant facts as to the occupation of these people, their relationships, etc. But I have of course been very careful to say or invent nothing which could mislead the student of drunkenness on any point which has a direct bearing upon the disease. In other words, the descriptions give actual clinical pictures, which, so far as my observation can be trusted, are accurate. But they do not pretend to historical exactness in details which do not have a bearing upon the disease.

FOUR HIGH-CLASS ALCOHOLISTS.

Mr FIRST, Alcoholist, Widower, Saint.

A case of drunkenness in a saintly man under the strain of domestic affliction. A case of relapse and of fatal termination because of a delusional false hope.

Andrew First was one of the gentlest and most guileless of men I have ever known. He was the kind of man one would suppose some of the disciples to have been; for he was a determined man in matters of conscience, and of a mild, persuasive eloquence. His very vice was in some sense a glory to him, for it was the price he paid for a most worthy devotion. He was a martyr to an idealised wife, whom he nursed and worshipped while she lived, and whom he still worshipped when she had died. Of all the drunkards I have known he was the most to be admired and the most to be pitied.

Andrew came of a great family—not great in the book of snobs, for he and his family were plain folks; but they were great in learning and in piety, made strong ministers and elders, and were beloved of a very large circle of friends and admirers. They were men and women of strong religious ambitions. Andrew himself was what is called a very religious man. That is, he was a staunch pillar of the church, an elder, and a Sunday school teacher. But he was religious in his thinking and feeling as well as in his profession, and the fruits of his beliefs were a manner and conversation of great godliness, and a mind free from malice and guile. He was a simple man, straightforward and uncompromising in doctrine, holding views of God and of life free from all subtlety and doubt; and he was simple also as regards evil, unprepared for the malice aforethought of his neighbours and for the devilish insidiousness of the drink habit.

It was Andrew's misfortune that he had not realised the

danger of alcohol. Drunkenness was so far removed from the rest of his character, or rather so much at variance with it, that he had not conceived it possible that he should come to grief over it. In earlier days, and indeed until near the time when he came to us, he was an abstainer or nearly so. But he dispensed it freely to his friends and neighbours, and, unfortunately for him, always had it in the house. He was devoted to his wife, who, from his account of her, must have been a fine character. She had at least inspired him; and his whole thought and energies were devoted to the care of her in a deeply religious spirit. This was specially so when her last illness came on. He began then to lay aside everything else, to neglect his business and his church and his Sunday school, if only he might nurse her back to health. Night and day he was with her, refusing, as such men will, the help of neighbours and the skill of trained nurses. Even before she died—and here is the tragedy—he had learned excess. Tired and weak from want of sleep and from the poverty of lonely meals, he began to buoy himself up with whisky. So fortified, he could appear more cheerful to his wife, and could better conceal his weariness, better dissemble his fear for her. It was obvious that she would soon die. What matter if he did drink, if she were dead? So it became a race between her disease and his, and drink won. His habit had got past the stage of concealment before his wife died, and more than once or twice she endured the pain of seeing her husband drunk beside her death-bed. The pain of it did something to hasten her end, and the shame of it did not stay him.

It seems extraordinary that there should have been no one at hand to stop him. One wonders what his clergyman was thinking about, and his friends. His relatives were not at hand. A very little firmness would have saved him then—a threat of public disgrace, the merest physical compulsion. He was so mild a man one dared have done anything with him and have cowed him into sobriety, at least until his wife was dead. But no one seems to have tried anything more bold than preaching against the immorality of it. I am of course giving the patient's own account of his habit, and he always spoke of it with great shame, and with no blame for anyone but himself. But, even supposing this history to be very inaccurate, here

was a man who certainly had no right to become a drunkard, and his familiar friends, if he had any, had no right to let him become one. He was no more a drunkard by nature than was the apostle John.

When his wife died Andrew was drunk, for the next few days he was drunk, and he was drunk at her funeral. Then he came to us.

This whole experience was a terrible trial to a deeply religious man. But Andrew still preserved a simple faith in the old beliefs. With a magnanimous inconsistency he laid the entire blame for the past on his own shoulders, and the whole responsibility for the future on those of the Almighty. So he set himself to bear without grumbling what from the first he regarded as a season of repentance and of expiation. He never quite grasped the medical aspect of the case. He bore with us in a spirit of Christian patience and tolerance when we examined his various systems and when we spoke of the physical causes and aspects of his habit. But to him drunkenness was a sin, and nothing more and nothing less than a sin; and a due repentance was the only possible cure for it. It had been ordained by his relatives that Mavisbank was to be his wilderness, and his humility forbade him to rebel. He would eat of our locusts and clothe himself spiritually in camels' hair, and in time he would be strong to fight his devil.

Everything that was suggested he fell in with in a spirit of submission, except a very few things, like cards and dancing, which were against his conscience. He took the regulation walks within and without the grounds, he accepted the constant supervision of an attendant, he went to bed at ten and rose at half-past seven, he went to the drawing-room on the nights prescribed, he curled, and golfed, and played bowls,—all with the same cheerfulness and docility and repentings.

One thing preyed constantly upon his mind and told against his recovery. He had been too drunk after his wife's funeral to see that the grave was properly atttended to, or to remember whether it was or not. The idea of his neglect took on the nature of a delusion in his mind. It became insistent and not amenable to reason or to argument. It was of no consequence that his father undertook the care of the grave, and that he was assured that

all that was needful for decency and for appearances had been done, that the rest could wait until he went home and could choose for himself the kind of head-stone and fence which he preferred. Night after night he lay awake in shame over that untended grave, and day after day he besought us to discharge him that he might redeem his character in the eyes of his neighbours and of his dead wife. I am sure it was part of his faith that she was aware of his thoughts, and that she wished him to be beside her grave. And now that he had got beyond the influence of drink, the memories of his wife were very strong in his mind, and his great desire to go back to the place where she had been confirmed his sense of his duty to her grave.

The very persistence and intensity of this idea of Andrew's, and its remoteness from all persuasion, made us distrustful of his stability. We offered to send him home for a day or two in the care of his brother or of some other friend, but that did not suit him. He must go alone, and be free to return or not, as he thought right. This was a vital matter, and one between him and God, in which no one else might have a say. It was his wife's affair and his, not his father's or ours. It was a very delicate and difficult idea to meet. On the one hand it was part of a religion which was everything to him, and which we of course could not oppose. If he was to be saved at all, his salvation would be in the strength of his devotion to God's will, and this was what he took to be God's will. On the other hand, the insanity of the project was alarming. He had been drinking for more than a year, and had been more or less drunken for months. He had only been two months at Mavisbank. Now he wanted to return to his home, where there would be no one to control him, where he had as much drink as he wanted in his own house, and where he could drink secretly for weeks. There was nothing to prevent him except the sense of duty and the memory of his dead wife, whose influence even on her death-bed had already been proved insufficient. He had the strongest belief that God would keep him, but that was, in my opinion, only a religious expression of the drunkard's false assurance, though he was perfectly sincere in it.

All such unrelated ideas as we call them—ideas which possess the mind, which do not allow themselves to come

into relation with common sense and with reason—are, from our point of view, a danger. A man who is a slave to a small idea, one which is related to a very small field of consciousness, is not to be trusted. A sense of duty which is wide, which is an incentive for every hour of the day and night, is dangerous enough if it ignores the facts of a man's life. But if a man has the idea so narrow as that his wife's grave is the place for him; if no argument will deter him; if he will go to it though lions bar the way; if he will visit it though the mistress who has already betrayed him is waiting there to have him back: then you have no grounds for believing that he will not throw himself from a pinnacle in order to reach his wife in heaven. That was the kind of insistence which Andrew First's idea had, and we had no grounds for believing that he would not easily become a prey again to the habit of drink, to which he had already prostituted himself.

On his father's earnest entreaty, he allowed himself to be persuaded that perhaps God meant him to undergo a longer period of probation and of penance, and promised to stay on another month. All that time, however, he was blaming himself for his want of trust in his own conscience; all that time he was nursing the belief that his wife was, in some sense, waiting for him at home. But he persisted, as before, in doing what was required of him in a spirit of submission. He was working out his salvation.

When he left us at the end of three months, I had very little hope of him. There was no organic ground for drunkenness that I had discovered, but there was all this tendency to isolated habit. He had now an absolutely immovable assurance that he would have grace given him to resist his devil. He had been forgiven his past, and for the future he must walk humbly, but without care. It was his part now to serve God as before, but more faithfully and more zealously. I tried to give him some commonplace advice as to how to keep himself from the temptation to drink. But even to me it seemed futile in the face of his confidence. He was on a pedestal where no worldly mind could reach him.

This man surely had as strong a ground for hope as ever drunkard had; but he lacked one thing—a sense of the value of a friend's help. There was no one to control him, and he was beyond friendly help by the facts of his nature;

he would have kindly rejected control. And so, before many weeks had gone, he had drunk himself into the grave which he had been so eager to visit.

Mr SECOND, Alcoholist, Governor, Husband.

A case of drunkenness by circumstance. An instance of the effect of a drunken wife. A case of reform in a strong man. A recovery from the early stage of the disease before there was a deep impairment of purpose. A case with no gross physical signs of drunkenness and with nothing approaching to insanity. A good prognosis.

Mr Second was a drunkard because his wife was a drunkard. There was no other assignable cause. He himself did not so much as blame his wife. He had gone on drinking until he found that it was a habit which he could not stop. That was all. He had no excuse. He had been too soft with himself. That was the kind of view which he took of his own case, and it was a very hopeful one.

He had represented his government in a remote part of the world until, through drink, he began to misrepresent it, and his government dropped him. Then he left his home, from which his wife had already gone, and came to the old country to recruit.

He was a man of commanding physique, with a great reserve of manner and great dignity of carriage. He was just the sort of man to set over a new colony where there was a lot to be done and some trouble to be dealt with. Nothing seemed to disturb his nerve—not even the discovery that he was a drunkard. But by degrees his wife had made his home a filthy place to live in and good society an impossibility. He had not been an abstainer, and under domestic provocation he began not to be sober. The rest of that part of his history is just the history of nearly all drunkenness. He became incompetent, irregular, impulsive, untruthful, and he was deposed. Finding himself homeless, wifeless, childless, and without a berth, he set out with the express intention of mending his life. But habit was much too strong for him, and good resolutions went the way of his

other good properties. Then his brother and his doctor persuaded him to come to Mavisbank.

He was with us for only three months, and there is nothing special to report about his subsequent progress. There were no symptoms of insanity, as the sheriff knows it, and no motor or sensory signs of importance. He had a good appetite and slept well after the first week of abstinence, and in a short time he was the strongest man in the place. We kept him hard at work, and it is characteristic of the man that he did not despise it. On the contrary he soon began to take an interest in it, and to devise things that he thought it would be good to do. Then he left us to return to his wife, who had been converted, and was carrying on temperance work in a new part of the colony. Two years later we have news of him which is entirely satisfactory.

Mr THIRD, Alcoholist, Husband, Gentleman.

A case of drunkenness because of idleness and perhaps because of a wife. A drunkard of great original capacity not gravely impaired by excess. A case of quick recovery and of good prognosis. A case of golf.

Mr Third came to us under an assumed name, he quarrelled with us seriously within a fortnight, but he stayed on because he had paid to be treated, and he liked value for his money; and after four months he was discharged recovered with good results. These things were characteristic of the man. Secretive and a little sly, exacting and irritable, not afraid to speak his mind, very business-like and methodical, he had plenty backbone left, though drink had worn off the layers which make life pleasant.

He had been a quite different kind of man at one time. Like Mr Second and others of this class, he was a drunkard from circumstance and not from constitution. He was a strong man betrayed. His early history I have never learned, and he gave no encouragement to us to enquire into it. He had been here for two months before he alluded to the fact that he had a wife, and then he only

signified by a sneer that she did not interest him. He never talked about his habit unless with some serious purpose, and I cannot say at all when or how he began to drink. He had had a business, not in Scotland, and had made a considerable fortune. From that he had retired, and was now a county gentleman, running a useful hunting stable and a good grouse shooting. His misfortune was that he had acquired a beer habit, and could not throw it off.

He took a business view of our relation from the first, and told me the nature of his habit as if he were specifying for the basis of a contract. He did not drink at meals, he said, but between times; he began early in the day, and every day; he affected beer in particular, though he could enjoy wines; he drank until, in the evening, he found himself stupid with it; and he had indulged for some years. The habit had now become hopeless; he was taking a great deal of alcohol, and it was hurting his health, his temper, and his spirits. He was quite prepared to go under treatment and to put himself to no end of trouble, provided that we could break his habit. He travelled alone from England, his mind fully made up, and he was sober when he arrived.

The bodily symptoms were not severe. He had some dyspepsia and some enteritis, and his nerve was not quite what it had been, but there was very little else. His diarrhœa was mild—about three motions a day, and it was checked almost immediately when the alcohol was withdrawn. His appetite improved at once also, and the feeling of heaviness and discomfort over his stomach and liver, which were enlarged, quickly subsided. His nervous irritability alone gave us trouble.

The quarrel to which I have alluded was couched in a polite note, to which I replied in person after a few days during which I was from home. The dialogue was a little heated, but we "had it out," and there was never again any overt unpleasantness between us. How much resentment there may have been under the surface I cannot say. He was, as a friend expressed it, "a difficult man, sometimes quite impossible." In this instance he had a real grievance in respect that the prospectus had given him to understand that there were ample resources in the place for the comfort and amusement of the patients, and yet had not made it clear that, in order to their enjoyment, the patients must themselves develop them and keep them available.

The interests which an asylum can offer are of course limited, but Mr Third, after the preliminary canter into rebellion, made the most of them. After a very few weeks we allowed him to go about the grounds alone and to amuse himself at his discretion. Although he did no manual work, he had to conform to the rule which prohibits play in the forenoon, and then he seriously occupied himself in reading. A very short time later he was allowed to go beyond the grounds alone, as he had already done with his attendant. He had taken seriously to golf, and if any one thing can be said to have saved that man, golf must get the credit. He practised assiduously, first here and then on other greens, and he also did a great deal in exploiting all the places of interest in the county and beyond it.

Still he was not pleased, and a relapse, not to drunkenness, but to restlessness and discontent, nearly proved fatal to his chances of recovery. The place and all the irksomeness of a disciplined life got on his nerves. Little things annoyed him out of all proportion to their gravity. He admitted that this was so, but took it as a sign that he must leave, not as an indication that he was still not safe. One thing only, I believe, kept him here as it had kept him after the first fortnight—the fact that, according to our rule in such cases, he had paid six months' board in advance, the balance of which would be forfeit unless his own doctor approved of his going. Another circumstance contributed to his remaining, in that his wife was expecting her confinement, and her doctor was naturally opposed to his return until that was over.

Until the end of his stay Mr Third gave us no further trouble or anxiety. He roamed all over the countryside, taking prodigiously long walks; he planned all sorts of improvements in our household arrangements; he devised a new golf club and laid out our course on a new pattern; he tried to convert me on politics, went to the theatre, doctored the horse, called frequently upon friends whose acquaintance he had made since coming to us, and was altogether very busy and very cheerful. He was much more abroad than at home during these weeks, but I never had the slightest reason to suppose that he was taking any alcohol whatever. He still had a keen sense of honour, and I believe he would not have lied to me on those subjects. But though I questioned him at intervals about it, and talked

with him about his prospects, I always thought well of his conduct and of his chances.

There was only one unlikely element in the case when he left us at the end of four months—the *spes vinosa*, as we call it, the almost certain conviction that he was out of danger and that he had nothing more to fear on the score of drink.

I call this case a cure whatever happens. He may take to drink again, he may not; but when he left us he had certainly recovered from his habit, and was no more likely to relapse than a man who has had, say, rheumatic fever is likely to have it again. He had no craving, not even an inclination to drink; we might even say that the notion of it was distinctly disagreeable; he had been living a perfectly free life for six weeks, except that he knew he was on his trial, and he had as much opportunity for drink as he could have at home. He had plenty money, he even had access to stimulants in the house during the latter weeks, but he proved himself sobered.

Taking Mr Third's case as one which ought to have a good result, the important question arises, what will insure his continuing to do well? When we say we have cured him we do not mean that he is not more likely than his neighbour to become drunken again. The brain does not forget. A man cannot drink for years and be as if he had never tasted or never exceeded. The pattern of the taste and the feeling of drink is woven into his nerve-paths. But an unfortunate liability, in quite as high a degree, may attach to a man who has incurred bronchitis or to a woman who has had a severe neuralgia. In all cases it is essential that the patient should avoid the environment or the conditions which occasion the trouble.

That brings us to the important fact that the blame for the relapses of many drunkards lies at the door of those who have charge of the case after discharge. One cannot expect the relatives to be of much use, for, if they were, the patient would, generally speaking, not have become drunken in the first instance. It is on the general practitioner that the burden must fall. He may send his patient to an institution to have his habit broken, but there should be the most definite understanding that that is a measure of the most temporary kind, a mere opportunism. For weeks, months, years, the family doctor, or some one who is agreed upon,

must shepherd the case. Drunkenness is like many other serious maladies. Its curability depends as much on the relation between nurse or doctor and patient as on the disease. It is a malady which has a long stage of inception, and a more or less acute stage of very varying duration. But, in every case, the stage of convalescence is most precarious and difficult, and it generally lasts for years.

What the measures are which a doctor should adopt to insure the patient's safety nearly everyone knows in a general way. But, as was said at the outset, every case should be treated on its merits, and at no time is this more important than after the case has left the hospital. The particular needs of Mr Third's case, for example, so far as I know them, are quite simply stated. As has been said, we are ignorant of the private history of this man's early stage of vice, but we are fairly certain to be right in assuming that there has been something in his private circumstances which made for drunkenness. On that point the family doctor is likely to be well informed. I fancy there was some domestic trouble which made life unhappy. That is an element in the case which it is the doctor's business to master and to control, just as he would control to some extent his business life. The domestic relation must be viewed and handled in its therapeutic aspects with the smallest possible reference to the social. If a wife is such that a man cannot live with her on ordinary terms and be sober, he must live on extraordinary terms with her or apart from her. If a man's business is such as to make sobriety impossible, so much the worse for his business. One must take seriously in hand the primary conditions which make for drunkenness, and see to it that they are as far as possible minimised.

But there were elements in Mr Third's character which are a weakness. He was a bitter man, a man who gave one the impression that life had been soured for him. Few things seemed worth while and few people. He had tried politics, but, being an honest man with some convictions, he had been disgusted with the partisan spirit of the recognised officials of his party. He had tried enlightened philanthropy in a small way, but only to find the British workman intractable. His friends were few and of doubtful value. He must, therefore, embark on some undertaking which will interest him seriously and hopefully. He had

been a keen and able man of business, and the business instinct is still very strong in him. But, under the present mode of life, it does not have a large enough or constant enough expression. His interests are not sufficiently important. He has not inducement enough to keep a clear head, if being fuddled only leads to his being thrown out in the hunt or to missing too many birds. He ought to be led into some really big enterprise, and, if possible, one which will engross him for not wholly self-interested ends.

These suggestions are of the nature of what we call moral treatment. They are such as a liberal clergyman might induce him to appreciate, or a sympathetic doctor.

To put the subject in a sentence, a drunkard who is convalescent requires to be controlled with a very firm hand in matters that are dangerous, and to be encouraged judiciously to realise the biggest enthusiasm of which he is proved capable.

The latest news of Mr Third, eighteen months after his discharge, confirms our best hopes for him as regards sobriety.

Mr FOURTH, Alcoholist, Man of Resolution.

A case of relapse after several years. A case of common sense and prudence in good time. A cut and dry notion of how to be reformed, and the resolution to submit to the process. A case of good recovery and of good prognosis.

Mr Fourth was a man whom one thinks of as not having a Christian name. He was a reserved man, and always had something on hand, so that you felt you were interrupting when you spoke to him, and everyone called him "Mister" Fourth. He came to us entirely of his own accord, with the approval, but not at the suggestion, of his wife; and he left us recovered. The day after his admission he asked me to allot to him a definite piece of work, which he might do to improve the look of the place and for his own salvation, and which he could see finished before he left. He had thought the whole thing out on his way up in the train from the south of England, and had a very excellent scheme for his recovery cut and dry. He had

been here once many years before, and knew what was what.

The facts of this case are interesting as indicating the kind of man who is an ideal "voluntary patient." When he left the asylum the first time, he returned to business full of purpose and of energy. He remained a total abstainer for several years, and, with the help of his wife, to whom he was devotedly attached, built up a considerable business. Then, unfortunately, for the first time, his wife went on a visit to relatives without him and he began to drink and kept on drinking for a week. Then he came to himself and wired for his wife, who arrived to find him making preparations for a sojourn in the North. She, of course, approved the plan, and sent him off with enough money to reach Edinburgh, but no more. We had been apprised of his arrival—late at night, and an attendant was sent in with a cab to meet him. Unfortunately they missed each other in the station. We who did not know the man concluded that he had changed his mind en route, and waited. Mr Fourth, however, slept all night in the station, as he feared to come so late at night when we had evidently forgotten to expect him. Then, next morning, without breakfast, he walked out—six miles—and settled down to recover.

This independent and really voluntary purpose to be done with drink is of the first importance in prognosis. From the bare facts of Mr Fourth's admission, one expected a recovery. Indeed, the strange thing is that such a man should find it necessary to come to the asylum. That is probably explained by his having been here before; and also he was secluded from temptation here, for he did not desire to go beyond the grounds without an attendant. (Such a resolution, be it observed, does not imply the integrity of purposive function which is implied by daily abstinence in the midst of temptation).

His diligence in useful occupation was also a very favourable sign. Most drunkards are habitual loafers, who never do a hand's turn if they can help it, unless for gain. A great many of them think that manual work is not gentlemanly. Very few of them appreciate the idea that it is worth while to do a good thing for its own sake. Mr Fourth did. He believed that it was part of his cure to take up a piece of work and go at it hard, with no further

remuneration than just that he had done something which was worth doing. So he kept the turf of the various lawns in order, and enjoyed bowling and croquet with the pleasure of an expert green-keeper. We had no golf in these days.

It will be one of the difficulties of treatment when the long-looked-for Compulsory Bill is brought forth—this aversion of drunkards to useful occupation. Its economic aspect is not worth considering. The work of patients, most of whom require supervision, does not pay to any great extent. The shepherd costs more than the mutton is worth. But I do not believe that an idle man who has become a drunkard will abstain from drinking so long as he remains idle. It will need to be part of the discipline of every inebriate reformatory that patients must be regularly and properly employed, whether they be rich or poor. I do not mean that better-class patients should necessarily do manual work, though I have great faith in it for most people. The point is that the man's or the woman's mind should be occupied at the best and most engrossing work which the resources of the institution can provide. Manual work is certainly useful in the earlier stages of a patient's regeneration, because it diverts energy from the track of self-feeling into saner channels. The larger the issues at stake, however, the more likely is the work to absorb the mind with a saving strength. Mr Fourth, for example, like Mr Third, will find something more useful, or at least more satisfying, than gardening or road making.

This patient left us after three months, with our full approval. That calls to mind another fallacy, as I believe, in the accepted notions as regards a drunkard's prognosis. It is commonly said by experts, accepted by Parliamentary Commissions, and echoed all round the public, that a drunkard should not be granted freedom under two years. Surely, in this as in every other mental perversion, we must judge the cases on their own merits. It is certainly absurd to class all kinds of drunkards together in this respect as it is to treat them on a uniform plan. To begin with, you cannot lay down the same rule for what are popularly called "soakers" and for what are called "bouters." Mr Fourth had a bout once in several years, but his bouts were of the kind which used to last for many weeks. We may dismiss his case as too unusual to afford a basis of argument. There

are cases, however, in plenty, which are fairly to be cited. Many drunkards, properly so called, have bouts of drinking every few weeks or months.

Such cases we do not pretend to treat with a view to the possibility of subsequent relapses. But we can be of use to them in the way of rescuing them, if need be, from an imminent relapse or from one which is actual. If a patient feels that his temptation is becoming too strong, or if he has given way and cannot pull up, the shelter and supervision of the asylum will certainly recover him. In that case we keep him until he is physically built up and has recovered his nerve and his general interest. But my point is that there is a time beyond which, if you keep such cases, you do harm and not good. As soon as the asylum life becomes wholly stale and unprofitable in the mind of the patient, there is the danger that you kill his interest and make him a loafer. Other considerations sometimes come in—as, for example, a physical condition which perhaps underlies the periodic relapses, and which takes time to restore to its best. A heart, for example, or pelvic troubles, or insomnia may require more or less prolonged treatment, and it may not be safe to subject the patient to the temptation of life outside until the physical state is sound. There again you must be guided only by the facts of the case.

But there is in many cases an inherent weakness of character which first made the drunkenness possible, and that is generally a moral fault which is not likely to benefit from the regime of an asylum. If patients would live in the asylum and conduct their business and see their friends; if every large town had a retreat in the suburbs to which the patients returned every night immediately after business, went to their entertainments from it, and to church, and everywhere, as they would go from their own homes; if they left on holiday sometimes, and sometimes spent a week-end in the bosom of their families—if, in short, you combine the interest of a free life with the supervision and the sense of control of an asylum—then by all means keep him as long as possible, two years or three or four, with ever-increasing liberty. But an asylum is not a city, and cannot offer a life full of moral, practical interest. For city men who have gone astray you cannot restore the moral will in a place of retirement, much less in a place of idling. The good nature, if it is to prosper, must grow out of the

conflict of a manifold life. The will to be good is the subsidence of foolish passions in a struggle of busy interests. Drink must be drowned in the stream of a life which is crowded with movement converging towards some end. You almost never hear of the permanent cure of a drunkard, unless it be that he is carried past his habit by some big ambition. For that the asylum or the retreat has no resources.

Mr Fourth's case was of the best. In three months he had acquired all that we think an asylum or retreat can be asked to do for a patient. He had forgotten the taste for drink, picked up his regular habits, regained his self-respect, and was in good health all in so short a time, because they had not been very far gone. So we call him a "cure." If he did not do well after that, the fault is in his circumstances. We had done all we could ever hope to do. But we hear, three years later, that he is still an abstainer.

FOUR AVERAGE ALCOHOLISTS.

Mr FIFTH, Alcoholist, Husband, Man of Business.

A case of prolonged drunkenness to the verge of delirium tremens. A case of over-attention to business. A case of vigorous handling by a strong-minded wife. A case in which hypnotism failed.

It will be very apparent, presently, why we call Mr Fifth a husband—namely, because, like Mr First and Mr Second, he had a wife. Others of our drunkards have had wives, but not wives like these. Andrew First's wife was his idol; Second's was the millstone about his neck; so, perhaps, was Mr Third's. Mr Fifth's was his master. He is a young man to have earned so much money, for he started life with very little, and now he may fairly be called a rich man. He saw an opening for business—a business to which he was an entire stranger—and he went into it. The success of it depended upon the situation of his place of business. Once there, he took a wife to it, and worked hard at making money. Apparently he thought of nothing else, and his wife helped him to disregard every other interest, for she was as keen on business as her husband. I do not remember ever hearing that he had made friends; and his family relations were so secondary that I cannot say whether he had a family or not. Children were as nought compared with horses and cattle and poultry and everything eatable and drinkable that you can sell or deal in.

It was just this keenness on business which brought Fifth to ruin, for business is dangerous when you deal with men who like to seal every bargain with a drink, and such men were his clients. Business was further his ruin, in respect that he was too keen to go away from it and take a proper holiday. So for years he stayed on, working late and early, and all the time increasing his dose of whisky.

Then, at last, when business was most pressing, right in the midst of the most lucrative season, he found it necessary to drink at night in order to sleep; again, in the morning, to pull him together for the day; and, worried and sleepless, he came to the verge of delirium tremens. This was the first occasion of great excess, but he had been drinking too much for many years. His wife then took command. She had not seriously interfered before, except by precept and warning; but now she locked him up in his bedroom, which was on the second floor, and sent for a big neighbour. Him she induced to assume the responsibility of taking bodily possession of her husband, and he sat over him for a night and a day until he was sober. Then she allowed him to leave the room only on condition that he would immediately pack up and go to Mavisbank for a holiday. How she had heard of us never transpired. We lived two hundred miles away, which probably was an attraction, and this provident woman must have been studying the subject for some time. So Mr Fifth came to Edinburgh like a lamb with this huge gamekeeper, in his wife's pay, threatening to throw him out of the carriage window if he gave any trouble.

There a misfortune occurred. The gamekeeper did not quite know where we were, and left Mr Fifth asleep in the hotel in the charge of a waiter. When he returned, the bird had flown, and inquiries proved that a man answering to his description had taken train for the place whence they had come—half an hour before. There was another train a few hours later, and the keeper took that. At the end of the first stage there was a break in the journey, then another long stage, and, last of all, a thirty mile drive. The keeper found the patient drunk at home, and the wife very angry. A train started back that afternoon, and she packed the weary couple off again. They arrived at Mavisbank the next day. They had done these three journeys with only a break of the night in which they slept in Edinburgh between the first coming and the escape. I have rarely seen a strong man look so tired as that keeper.

Mr Fifth's case proved interesting in other respects besides the matter of his wife. He was very paretic, tremors affected the muscles of his face badly, and his speech was barely intelligible. These were not the tremors of intoxication, for he was now sober; the state was one

of delirium tremens without the temperature. He could hardly carry a glass to his lips; he could only crawl, not walk; he was hearing imaginary voices and seeing visions; his memory for recent events was almost a blank. To this was added a hysterical state which one almost never sees in men except in drunkards. He exaggerated his shaking and his weakness, fell down sometimes unnecessarily without hurt, stopped in the middle of a sentence and mouthed inarticulately, wept, and fawned upon his attendant or me like a woman. This suggested a mild hypnotic treatment for later use, but meanwhile the nervousness had to be got rid of. A few doses of sulphonal, hours of fresh air, liberal supplies of milk and soda, saline purges, and acetate of potash, were administered. Sometimes his pulse became too shabby, and he had digitalis given him, with sal volatile, as a pick-me-up. Later, we prescribed large doses of steel drops in glycerine and water, for he was very anæmic, and on that treatment he made blood fast and lost his nervous symptoms.

Then I hypnotised him and tried anti-stimulant suggestion. I first gave him a hypodermic injection of a hypnotic, telling him that he was to give way to the feeling of sleepiness. As I expected, he took to the suggestion immediately; in a very few seconds, while I was still talking to him, he began to breathe heavily, and was apparently in a dreamy state. I then made the usual kind of suggestions to him; told him that he could not open his eyes, that he could not speak, etc., and his attempts to do so were apparently genuine, or he thought them so; anyhow, he screwed his eyelids and his lips, but failed to open either his eyes or his mouth. He was lying on the ground, flat on his back, and I told him to get up and sit on a chair, which he did. Still, the hypnotic state persisted, and the suggestions apparently had their proper effect until I told him that his power had returned. Before doing so, I told him that this stuff which he was taking would satisfy his taste for drink and be a substitute for it, that he would never wish to drink strong drink again, and that if anyone persuaded him to taste it he would most certainly be sick. This operation was repeated every day for a short while, and afterwards at longer intervals. After the first day, I never injected anything more than simple distilled water, but it never failed to be successful in inducing a state in which

motion and sensation were abolished to any extent I cared to suggest. About three weeks later, when he was in this hypnotic state, and lying on his back in the surgery, I told him that I was going to give him something to taste, and that he was to swallow it if he liked it, but if not he was to spit it out. I then gave him a tablespoonful of whisky and water, and, almost before he could have tasted it, he ejected it with a grimace, saying that it tasted like bad oil. (It was quite good old whisky). When he had been for about six weeks without drinking and was "on parole" in the grounds, we allowed him occasional passes beyond the gates without an attendant. He was bent upon leaving at the end of the three months, and, as usual, we thought it best to subject him to some temptation while still under supervision. All went well for some time, but one night, without any special occasion for it, he came home deeply drunk. The hypnotic treatment had been kept up during these weeks.

What the extent of conscious deception in these cases of hypnotism may be it is very hard to say. An experience such as this is not at all infrequent. We had a case at Mavisbank once who had been one of the hardest drunkards I have ever known, and the result of hypnotism in her case was perfect. After six weeks' suggestion, she was able to go into the most free temptation, and shortly afterwards accepted a position of trust and responsibility, where she could at any time have got as much drink as she liked, but she kept absolutely sober. She then was appointed to a higher post in another part of the country—for she was a clever woman—and she is still there and doing well. I have seen her from time to time, and always get a good account of her, though it is now about three years since she was "cured."

The effect of Mr Fifth's bout was much more severe than one would have expected. He had consumed a very large amount of alcohol, and he reduced himself by it to a state of nervous irritability not much better than that in which he came to us. That is, he was on the verge of hallucinations again. There was this difference, however, that he had now a much greater recuperation, and in a very short time he was nearly quite well again. As soon as he found himself so, he wished to leave, and was again and again on the point of giving me his three days' notice to discharge

him. Meanwhile, however, his landlord had heard of his misconduct, and threatened to turn him out of his place. Mrs Fifth rose, as usual, to the occasion, and wrote to her husband that, if he did not stay until I thought he ought to leave, she would go away from him, and would also give information to the landlord, which would make it certain that he would turn Fifth out of his place. Also, the landlord, who was a rabid temperance reformer, wrote to me asking about our patient, and, with the consent of Mr and Mrs Fifth, I replied that, after a little further treatment, the patient would be entitled, in my opinion, to another trial. And so the patient withheld his three days' notice and remained on as a voluntary patient, lest, if he chose otherwise, he would lose a good business and a good wife. This is the kind of compulsion to which the present inadequate state of the law has reduced us, in order to persuade a patient to remain on voluntarily who ought to be legally detained *nolens volens*.

In about six weeks more the wife came to see Mr Fifth, and, after a lengthened interview, in which one could see how strong a pull she had over him, she consented to take him with her on very strict conditions. These were—

I. That Fifth should be absolutely teetotal.

II. That he would not enter a public house.

III. That he would keep no liquor in his own house that was not in a lockfast place of which the wife kept the only key.

IV. That he would not go away from home without his wife, unless by her special sanction.

V. That, failing any of the above promises, he would allow himself to be taken back to Mavisbank immediately, and that his wife might employ force to carry out that removal, for which he promised not to take legal proceedings against her; and that he would then stay at Mavisbank for not less than six months.

Mrs Fifth did not content herself with a verbal promise. These conditions of his discharge were put in documentary form, and Mr Fifth signed his name to them in the presence of witnesses. Then she took him off, very much subdued but content. That is the right kind of wife for a drunkard to have.

P.S.—We have no definite news of the result in this case. One relapse has been reported. It seems probable

that if the patient were at all bad the patient's wife would say so.

Mrs SIXTH, Alcoholist, Wife, Daughter—A Study in Heredity.

A case predisposed to stimulants by an early cardiac lesion. A case of drunken parentage and of drunken upbringing. A case affording a text for a long and serious digression on hereditary. A case of bad results and of optimistic prognosis.

Mrs Sixth's case is interesting chiefly as a study in heredity, or perhaps still more as an awful example of upbringing. As we shall see, she came of a remarkable family, and there is a great deal in her character which should entitle her to be able to live soberly. But for the misfortune of her upbringing she probably would have turned out well, in spite of the fact that her forebears were given to too much drink; and that is the lesson which I wish to inculcate.

I can only have one excuse for insisting once more, and here, upon a revision of our views on heredity—the excuse that the accepted view seems to be untrue, and that, notwithstanding, most people still hold by it. I would say the same about the accepted views concerning the relation of heredity to insanity and other diseases; but what I have to say about drunkenness will illustrate what might be said about these so-called hereditary neuroses. No conclusive experiments in human life have been devised or ever will be devised in a civilised state, such as can decide the exact amount of hereditary influence in any given case of disease; control cases such as we would demand as an absolutely essential condition in all laboratory experiments, cannot be found; and, even supposing that it was established beyond all doubt that, for example, a drunkard begat children who were more liable than the average child to become drunken, because of an inherited constitution, there would still remain the practical question whether you can best combat evil tendencies of the species by interfering with the parent or by modifying the environmental conditions of the child. At all events it is high time that the question was considered by us in a scientific spirit and in the light of recent research. For any one who listens to the kind of opinion which one hears from the average intelligent man of the street must admit that there are some very definite opinions afloat; and, unfortunately, many of them are not only misleading but baneful.

Nearly every one believes that, if a father or mother died of cancer, the chances of the family are very unpleasant. Now, of course, it is useless to deny that cancer runs in families. So do insanity, and

phthisis, and drunkenness, and bad temper, and broken collar bones. You will find in some books a quite dogmatic expression of the dangers which beset the children of the insane and the drunken. You will find it stated that in, say, 60 per cent. of the cases, a history of insanity or drunkenness in ancestors was discovered. That, however, is not a complete statement; for, if the enquiry were far reaching enough, it would be found that in 100 per cent. of cases of these troubles ancestors had been similarly afflicted. Other investigations should follow. One would like to know, for example, the number of sober children descended from drunken stock, and, still more, the number of sane children of insane parents. The popular view of statistics interprets current facts something like this, that, if six out of ten cases are "hereditary," then the chances are six to four against each child of a drunken or insane parent. They are nothing of the sort of course. If statistics were complete, you would probably find that you have grounds for believing that a child's chances were not much worse for having an insane or drunken parent. For you would find an enormous percentage of drunkards and insane whose parents were neither, and of sober and sane children of drunken or insane parents. The simple fact is that investigations into the subject have been so loose, and so little regard has been paid to all the side issues, that we really are not justified in holding strong views of the question at all. I once tried to investigate the heredity of some of my friends in the minutest way possible, inquiring into the life history of every member, and I found that each family of consequence had, in three or four generations, exhausted nearly all the diseases common to British subjects. And yet there were quite a lot of these poor people alive, well, useful, and even happy.

To arrive at satisfactory findings you must take the effect of physical and moral environment into account. You must determine, for example, the effect of expectation in inducing disease. We treated an anæmic girl for ulcer of the stomach last year, and her case proved very stubborn. In spite of prolonged and careful treatment she became extremely weak and ill, so that at last we had to let her friends know that her life was in danger. There had been no serious hæmorrhage, but she lost weight, and tone, and spirits, at a most alarming rate. Then we discovered that she had nursed her mother through cancer, and of course was expecting to inherit it. All our easy talk about anæmia was to her just "so much bluff." As soon as we learned her fears and taught her to laugh at them she began to recover quickly. Girls suffer more from our unpardonably loose views on heredity than boys do. For example, in your ideal inquiry you must discover of how great importance in inducing insanity is the expectation which girls have, whose father or whose mother has been insane, that they will follow suit. I lately had a case of neurasthenia in a girl of bad parentage, who was employed in a useful but rather trying piece of work. When she went home for rest, which I had advised, her doctor reminded her that anyone with her family history must be most careful, because there was a serious predisposition to brain affections in her case. So she made up her mind that insanity was coming on. I thought well to send a very rude message to him, through the patient, which greatly reassured her; and she is still as little likely to become insane as most of us. Recently I have come across, either by report or in practice, quite a large number of cases of violent insanity in whose beginnings

this element was of the first importance—the suggestion occasioned by insanity in a near relative or neighbour. These cases require, and would repay, investigation.

This kind of harm—from expecting to inherit trouble—is common with drunkards. It affects them, not so much by inducing the habit, as by modifying their prognosis. "Of course I can't expect to get over it. My father was the same for years," is the kind of thing so-called hereditary drunkards will tell you. And there are few diseases about which so much that is unjustifiable is said as about drunkenness. For, although we of course admit that drinking runs in families, we shall be very rash indeed if we admit that, because a man's father drank, he probably acquires some physical disability which he passes on in kind to his offspring. That, and nothing less than that, is what we ought to mean by our statements regarding the hereditary nature of drinking. If we do not mean that, we should say what we do mean, and, as was said, we should probably be more honest and more prudent to say that we really do not know. If we do mean that drinking is hereditary in the above sense, there is still more reason for not saying it, because it is almost quite certainly untrue. There are many facts which are adduced in supposed support of the opinion that drunkenness is hereditary in the same sense as a nose or a defect in speech is, but not one of them is convincing. Just because grandfather, father, and son, have all been drunkards is no more proof that the habit is hereditary than that they all could swim is proof that they had an organic mechanism for swimming which was handed on from father to son. The difficulty with drunkenness as compared with a nose or a defect of speech is that you cannot eliminate the effect of example and of family and other tradition and of environment. A boy whose father had a peculiar defect of speech might or might not have the same defect were he removed from his father's house and taught to speak properly. If the defect survived, in spite of careful foreign training, you might be justified in attributing it to an organic basis which he had inherited. Noses do not seriously modify by training, so that you are able to say whether or not they are hereditary. But drunkenness is an affair of moral character. Moral character certainly has an organic basis. But, unlike noses, moral character can be modified by effort and also by surroundings. In this question of the inheritance of drunkenness the issues are practically the same as those which Weismann discusses in his essay on transmission of musical character. There are the same fallacies to be avoided in both questions. To what extent is musical character, to what extent is drunkenness, hereditary?

The case can be put very simply, which is not to say that it can be easily decided. You have two factors—the congenital and the acquired—in both cases. Let us take the case of music first, because it is an instructive and interesting illustration of the nature of the whole question of heredity, and it is really worth while to have some patience and to take some pains to get at the subject. Let us state the case in terms both of physiology and of psychology.

The physical basis of an inherited musical gift we cannot easily describe, but we can say that it is a mechanism specially susceptible to auditory stimuli. A great many complex mechanisms, such as those for vocal and other expressions of music, are mixed up in this faculty, but the essential thing is a quality of nerve mechanism which

reacts strongly to sonorous vibrations of musical rhythm. That quality may or may not be transmitted from father to son. In the young child, before his case has been complicated by environment, we may speak of a taste for music as the psychical quality which is congenital. That is purely ideal, because you cannot fix such a time. In other words, as soon as the child begins to breathe and to cry he begins to hear ; which is to say that he has begun to have his native character modified by his environment. But, ideally, the child does have a taste for music — a latent gift which a musical environment will develop.

In the father's case there was a great deal of acquired skill. He had studied and listened and practised until the mechanisms for hearing, for harmonising, and for expressing music had become enormously developed. Also—and this is very important—he had collected what we may call a very large musical tradition and musical plant. He was known as a musician, his house was visited by musical people, the whole atmosphere of the place was musical, and he had no end of musical writings and musical instruments in his possession. His acquired skill, his acquired reputation and tradition, and his acquired plant, must be distinguished from his congenital gift. But you cannot discriminate between the influence of these two factors in the development of his child's music. You cannot ever say here is a child who became musical in virtue of an inherited gift, because, as it happened, he grew up in a home which was musical from top to bottom, and any child who had an ear to hear, hands to practise, and patience to persevere, would have become skilled under the influence of such a father. The only true thing for us to say then is that we do not know, that the child may have had a great congenital gift, or he may not, that his environment falsified the case as an illustration of heredity.

Exactly the same kind of difficulty occurs in the case of the drunkard and his child, but now the fallacies are increased ten or a hundredfold. The drunkard sometimes has a special susceptibility to visceral sensations and to the gustatory and other stimuli which drinking affords. That is the congenital factor, and his child may or may not inherit it. But the father's acquired character is of much greater importance. He has acquired skill as a drunkard, a reputation, a tradition, a plant. His influence is alcoholic, his friends and acquaintances drink, his house and person reek of it, he has glasses and decanters and a cellar. His child then stands a poor chance, whether he has inherited the congenital basis of drunkenness or not. The child may have his father's special susceptibility to alcoholic sensations ; and if he has, here is an environment where it will be duly developed. But you are not at all entitled, merely on the ground that the child did become drunken, to say that therefore he inherited his father's taste for drink ; much less to build a generalisation on many such cases and give it out as a rule that drunkenness is hereditary. And here is another point, to which I have alluded in the pages preceding these alcoholic cases. If drunkenness is inherited, there ought to be some common feature, something characteristic in the diathesis of drunkards. Tubercle, for example, is not hereditary, but there is a type of constitution which is not normally resistive to tubercle, and that diathesis runs in families. But there is something to show for it. An expert can go into a crowd and pick out

those predisposed to tubercle. But who will do the same for alcoholism? Let the most experienced of our specialists go into a big school, and we may defy him to predict which of the boys are apt to be drunkards, however much he may study them physically and psychologically, unless he also enquires into the conditions in the boys' surroundings which make for or against drunkenness. Go into the families of these boys, watch the drinking habits there, investigate the cellar, note the absence or presence of precaution—then you may prophecy; which means that drunkenness at least *appears* to depend upon education rather than upon constitution.

Other fallacies here are immeasurably greater than in the musician's case. In our ordinary communities music is an exception, and a house which is really musical, where you can hear good music and meet good musicians, is very rare. But, in this enlightened age, drinking homes are really quite common. There are lots of houses where one can get good drink (roughly speaking, at every street corner), and it is quite easy to meet good drinkers in them. Our environment in general fosters drinking infinitely more than it fosters music; and by that much the fallacies from the environmental factor are increased when you come to assign the due proportion of blame for the development of the habit in any one case.

Again, then, let us be honest, and say that we really do not know enough to entitle us to lay down the law—not only because that would be true, but still more because the loose things men are in the habit of saying about heredity are disreputable and do harm to many who hear them. There can be very little doubt that there are drunkards who have a congenital taste for drink. In my opinion they are extremely few; but that is an opinion of little value, because I have seen so few cases. There can be very little doubt that a man who has a congenital taste for drink is more likely than other men to beget children with a like taste. But just how great that likelihood is no man can possibly tell. It is quite possible that it depends on an accidental basis in nerve mechanism which is not prone to repeat itself in successive generations. On the other hand, it is quite likely to crop up in the offspring of two total abstainers. At all events, the popular estimate of it is a gross exaggeration, and the idle talk of uninformed men is responsible for it.

Mrs Sixth's history illustrates the point. She was of the third generation of drunkards. In the direct line, her mother was drunken and her mother's father. There were others in the collateral branches. I have no information about the previous generations. The patient's father seems to have been a steady, hard-working, uninteresting man; not so the mother. She was a genius of a most interesting type, and very eccentric—a mathematician and classical scholar, a writer, and, above all, a musician. She played sufficiently well to be asked by great musicians to play duets with them in public. She had a very bad temper, she was very regular in her hours, in respect that she went to bed every morning after four and rose at noon; she practised

music chiefly in the small hours, and she fortified herself freely with sherry and brandy, so as only not to appear drunk until every one had retired. She had eight children.

I. Son: scholar; hard student; very eccentric, as he has repeatedly refused good business offers; very absent-minded, as he has often invited people to dinner and forgotten all about it; very learned; and very sober.

II. Son: very able and successful; very nervous; as, for example, in a dread of scissors, so strong that he cannot sit in sight of a pair; somewhat unconventional, so that he spends a good deal of his leisure as a socialistic lecturer; a total abstainer.

III. Son: very nervous and ill-nourished; was extremely delicate as a child; had acute vertigo when he saw things swing, so that he dared not look at trees in the wind, and his mother and sisters had to hold their skirts still when they walked in his presence; had an attack of actual insanity when a boy; is a total abstainer.

IV. Daughter: is my patient, and will be presently described.

V. Daughter: strange, cold-hearted, regular woman; was hysterical as a girl, and suffered an attack of melancholia; very sober.

VI. Son: handsome; gifted; artistic; drunken; is steadily increasing his dose, drinks liqueur whiskey after wine at lunch every day, several whiskies in the afternoon and evening, and is always stupid and "staggery" before bedtime.

VII. Son: manages the estate for the family; was a hydrocephalic child; is artistic and a skilled humourist; has never been observed to loose his temper; is odd in other ways; has bad headaches if he rises early in the morning, so does not; drinks a great deal, but does not show it or seem to get worse.

VIII. Son: also remarkably able; a scholar; like his eldest brother, got good business offers, but did not refuse them; has learning as a hobby; was drunken in youth, but became an abstainer when a girl promised to marry him on that condition, and entered the church.

The patient, Mrs Sixth, admits that she was considered the fool of the family, but in a family where cleverness was at a discount, and she has always lived up to the character. She is a very lively woman, talks a very great deal, is very

musical, and used to play the piano quite well until she took to port in excess, and is a good judge of art. She is a very pleasant companion, always ready to amuse and to be amused, fond of dancing, the theatre, concerts, musical parties, amateur theatricals and reading clubs; and she is devoted to animals, and has a remarkable gift for training them and great carefulness in tending them. She seems to have married her husband in the spirit of a care-taker.

Her history is particularly interesting, and it is instructive as affording illustration of the fallacies which beset an inquiry into the heredity nature of the drink habit, because hers is the kind of family which is said to prove that drunkenness is hereditary. As a child, Mrs Sixth suffered from some defect of circulation, which gave her great trouble ; she could not sleep at night for cold feet, and nearly always in the forenoon she began to be cold and faint. Instead of rational treatment, this child of eight was allowed to get up out of bed when she wished, and to visit the other bedrooms and her mother's room regularly. There she got a warm drink, generally a hot toddy, and in the forenoon she had a glass of sherry whenever she felt faint. She avers that she did not relish these drinks until she had got used to them. This kind of treatment was continued for years. When she was about seventeen, she was sent to a boarding school, and beer was the forenoon prescription, so she had a chance to learn to like various drinks. In a neighbour's house lived some young men who were advanced drunkards, and the two families were on very intimate terms. When the patient was fifteen, one of these men, then a boy of her own age, proposed to her, and it was always understood that there was a kind of engagement between them. When about seventeen this lad was very drunken and the patient used habitually to take him home from school to keep him sober ; and, even late at night, if the maid who was in her secret told her that he was at the public house, she used to fetch him out and take him home.

All this time, except about six months when she was sent to school, this girl was doing the work of a general servant in her mother's house ; for the father had become an invalid, they had lost money, and the mother always quarrelled with servants, so that she determined to have only a cook. In return, our patient was indulged to almost any extent, and the mother, in her husband's weakness, encouraged the

children to drink. A crisis occurred on the advent of an old nurse who had great control over her mistress and every one in the house. The scene is in the mother's boudoir, which is artistic in its furnishings, and which serves as a bedroom, a library, and a music room. The mother is regaling herself and her children with hot toddy, and they are all very jolly, and loud, and sociable. To them enters the old nurse, a tall, lady-like woman of a most stately carriage and imposing manner. She orders the children out of the room with the words addressed to the mother, that she is "rearing a nest of drunkards"—a phrase which has become a classic in the family. It was an epoch-making phrase, for after the mother had forgiven the insult, she accepted the rebuke and mended her ways as far as the children were concerned. From that time forward she tried to have a monoply of the luxury of drinking; but she was too late. In later years she herself stopped the habit, because drink became untasteful to her—a not very infrequent occurrence, perhaps due to a more or less acute attack of alcoholic dementia with blunting of the sensibilities, including the taste for drink. She then had a maudlin repentance for the habits which she had taught her children, and which in more than one of them were becoming serious.

It was when she was about eighteen that our patient realised that she could not dispense with her sherry, and from that time her habit has been unbreakable. She married her protégé when she was twenty-seven. At that time she was having a glass of sherry in the forenoon, another at lunch, and at least one more in the evening, and her husband was not so moderate. Except for a short time immediately after their marriage, things went from bad to worse. The husband went in for large doses of whisky and brandy, and his wife transferred her affections from sherry to port. In about five years it was obvious that Mr Sixth was killing himself, and in two or three years more he was an apparently hopeless paralytic. Then he went under treatment, and was recovered—demented to some extent certainly, but able-bodied and sober in his habits. His wife has been three times at Mavisbank, and each time we have thought that she was going to recover. When here she does not taste a drop of alcohol, though she is allowed full liberty after a very short period of supervision, but when she goes back to her husband, who is very nervous and requires much

care, she invariably returns, after a brief struggle, to her port.

There are elements of great interest, from a physiological point of view, in this case. When she is taking port, at the rate often of a bottle to four bottles a day, she enjoys what she calls perfect health. At such time her menstrual function is regular, not excessive, and gives her no trouble. She suffers no constipation then, nor has any diarrhœa; her appetite is good, and she has no headaches. When she comes to us, all her troubles begin. She menstruates once a fortnight, and to excess; she is obstinately constipated; she has no appetite; and she suffers apparent agony from headaches. It takes her about two months to get back to regular and normal functions after the alcohol is withdrawn.

But her cardiac condition is the most interesting medical fact in her case. She suffers from what is described as Paroxysmal Tachycardia. "Silly heart," she calls it. Without any organic lesion, so far as my investigation can be trusted (and an experienced consultant confirmed it), and without any reflex irritation that I know of, sometimes without any exciting cause, sometimes after violent exercise, sometimes after a worry, or a shock, or an excitement, her heart runs off at from 200 to 300 beats per minute. Sometimes there is palpitation, sometimes not. As a rule the paroxysm of hurry lasts about two hours, sometimes more, sometimes less. Sometimes, but not often, the patient is alarmed by it; generally there is only mild discomfort. There is no pain and no dyspnœa associated with it. The last time I observed it, the patient had been dancing and had become aware that her heart was hurrying. By the time I saw her (she was still dancing) it had greatly slowed, she said. At that time it was beating at the rate of 260 per minute. It is possible that it had not been going any faster, but that merely the discomfort attending it had lessened. I have not heard of cases in which the beats numbered over three hundred per minute.

Now this affection is not only interesting in itself, but it is of importance as a factor in her drunkenness. She was certainly not aware of heart-hurry in her child days, but she had very cold extremities and sinking sensations, especially in the forenoon. It was on that account that her mother, on the advice of the family physician, gave her

sherry. At fourteen years of age, and after it, according to the patient, she became aware that her heart was "galloping" when anything very unusual had occurred. Later, the accompaniment of palpitation occurred. More recently, with the excess of alcohol, it has become worse, and has demanded, as she thought, more stimulant. It has been a very common experience with her to awake in the night with palpitation and heart-hurry, and to administer to herself a glass or more of port, which was always effectual in soothing her.

During her first visit to Mavisbank, in my time, we missed the condition. The patient told me of palpitation, but of nothing more, and there was no organic lesion. Now that we have realised the gravity of her cardiac condition, we are in hopes that we may be able to curtail the patient's activities by the active administration of fear, and we prescribe bromide, cannabis indica, and sp. ammon. aromat. For this case, the chief moral treatment consists in teaching her to control her restlessness. She has more spirit than energy, and has to learn restraint. Amongst other things, she has learned to lie down for an hour every forenoon before dinner, and to read for a specified time instead of talking, as she is always ready to do. There are other ideas which she has to learn. She is inclined to believe in fads, such as that lying in bed at certain hours always does her harm, that tea does her heart good, that no one but herself can look after her husband. This last delusion accounts for a great deal. She sacrifices herself for that man daily, as she has done since they were at school. When she is not beside him, she is wondering what he is doing and what is wrong with him; when she is with him she is talking to him all the time almost exactly as a mother entertains her child. So we insist that she will live apart from him and leave off thinking about him, and not correspond with him more often than once a week, and let him learn to look after himself. It is obvious to everyone else that he can exist happily without her, but as soon as she leaves us she takes the reins again, and does the work and the worry for two. Fortunately she entertains no false hopes about her habit, and she is very honest and tries to be truthful about it.

I have no hesitation in saying that this is a favourable case as regards the drunkenness; I believe she requires nothing more than simply a constant, mild control for a year or two.

Anyone in whose wisdom and good intentions she has confidence, can keep her from her beloved port. If financial difficulties did not prevent; if her husband could go travelling with someone who would look after him; if she had a skilled companion, she would learn that she could live quite well without port, though perhaps she might require an occasional tonic.

As on previous occasions, Mrs Sixth, on her last visit, stayed with us for about five months, and was "discharged recovered." Six months later she is again "on port," and in a few months more will find herself on the verge of something like delirium.

Mr ROB SEVENTH, Alcoholist, Sportsman, Spoiled Child.

A case of a lad of vulgar nature becoming a drunkard at nineteen. A case of mistaken kindness of good parents. A case for intimidation. A case of apparent recovery after twenty years. A case of doubtful prognosis.

Rob Seventh was weak all his life, and a great favourite everywhere except in his own family. He was the son of unusually fine parents, and was brought up under a family regime which had few faults except that it specially favoured him and gave in to him. He was a first son after three daughters had been born, and from his arrival onwards until and after he had disgraced his name and made the old home a house of feuds, he received nothing but kindness from his people, and almost none of it was wise. In his early days, and later, he treated his own people with scant courtesy. His friends were not the family's friends, he avoided his relations, he associated with the vulgar. Indeed, he was himself vulgar, if to be vulgar is to have the manners and tastes of the class below you. He was worse than that, for his life dipped, not into the honest life of the rank beneath him, but into its unpleasantnesses. In schooldays, so his brother tells me, he spent much of his time in fooling with shop-girls, in riding-stables, and, of all places, at the shambles. In the days of his so-called manhood, barmen, policemen, grooms, prostitutes, bookmakers, dog-fanciers, were his intimate friends. There is no history of a confidant

among people of his own class except one young man who shared many of his tastes. They went out together of an evening, for the other man was an excellent pool player, and Rob took on the bets and shared them. To give the man his due, he was in many respects a good sportsman, but he was none the less a bad son. Imagine the feelings of a family well known and in great esteem in the city, whose head is an elder in the church and earns a public funeral, whose other sons are in the best clubs, and the daughters buried in good works, when the hope and heir is too vulgar and often too drunk to be seen "in company," and makes an occasional appearance in the police court.

This case is peculiarly interesting, because it seems to disprove the kind of things we are in the habit of believing and saying about the causes of drunkenness and the chances of recovery. Here was a youth who did not realise that his father and his mother and his home were of the best, who could not take pleasure in decent company or in respectable amusements, but must needs go outside and to low company for his pleasures. He played the fool in a manner out of all keeping with his conditions. That seems to bespeak a debased nature, and consequently a hopeless prospect. But the man has for the time being at least ceased to be a fool, and is living soberly. It has taken him about twenty years to begin, for he was drunken in his teens, and now he is nearly forty. He has sown his wild oats, people say, and now he is abroad and busy. It will be a great gain if any of the cases upset our accepted notions of the prognosis of drunkenness.

Admitting the original character of this young man to be one which in a certain sense made for drunkenness, or at least prepared for it, we have to take into account also the circumstances in his life which aggravated the weakness of his position. It must be confessed that his father was too much influenced by his mother in his conduct towards the lad. Forgiveness and indulgence were the order of the day. That boy could do nothing so disgraceful that his mother would not receive him with open arms again, and the father followed suit. The method was that of the prodigal's father—a method which requires great shrewdness and discretion to be successful. The mother also was responsible for an estimate of the youth's intelligence which determined that he must be sent away from home to learn

a profession under an eminent friend at a distance. Unfortunately the friend was as slack in the discipline of his office as the parents were at home, and the favourite was allowed to do very nearly as he pleased in the office, all the more readily because he sought an early opportunity of quarrel with every other clerk of importance, and each of them was put under subjection by severe handling or by unscrupulous threats. (Our patient was a good boxer and a bully.) To still further weaken his chances, he was boarded with a clergyman who was under his wife's control, and she was in love with the boarder. Her relations with him were always quite proper, but she did just exactly what he pleased. The worst feature of all, however, in his history was that he became the tool and the favourite of a very fast athletic club. That was in the days, not so long ago, when many a cricket or football match was followed by a heavy drink, and when the majority of the team were half drunk every ordinary night, and more than quite drunk every Saturday night.

By the time Rob was nineteen he was a drunkard, that is, he was drunk more often than sober each night after ten o'clock. Then he took to having bouts of drinking, interspersed with periods of sobriety. That is the safer method. A man may be drunk every night of his life and yet not be detected by his friends, and not openly disgraced; also, under this method, he may drink himself quietly stupid. Under the system of bouts, on the other hand, discovery is likely to come early, and retribution is more quick and more alarming. For example, after a few occasions on which Rob found excuses for several days' absence from the office, he was dismissed. After about four occasions on which he declared himself insolvent, on each of which occasions his people were misguided enough to pay his large debts, it was freely recognised that he was drunken, and that something must be done. He was taken home therefore, and lived, or at least slept and fed, in his father's house. As before, however, he made friends with impossible persons in the disreputable haunts of the town. Very soon each night saw his mother and father waiting up to put him to bed, and his sisters scheming to get him into the house surreptitiously, so as to elude the servants. A younger brother who was also at home, and who was as model a youth as the prodigal son's elder brother, earned his grey hairs in attempts to get the reprobate out of the public-houses and clubs before he

became nearly incapable. The patient expressed his thanks in many blows and kicks and curses at various times, and the rest of the family rarely expressed theirs at all. This was one of an enormous number of families who wholly sacrifice themselves on a futile altar of devotion to a reprobate. It is a practice which is not without explanation, even on grounds other than the principle that it is the lost sheep that requires the special care. The alcoholic member is very often the most interesting of the family, and, when he chooses, the most charming. Rob, for example, was very gracious at times, and his repentances were very moving. He had also an extravagant gift of sentimentality, and could be repulsively affectionate even when sober. It is not easy for simple folk to withstand the patronising kindness of a young man who has seen a great deal, who has moved in very varied society, who has by an exacting arrogance acquired the habit of commanding the household, and who condescends so nicely to take you into his confidence for the time being and almost treat you as an equal.

Nearly everything was tried that kindness could suggest except a very firm hand. He was coaxed and petted, he was betrothed and very nearly married, he was jilted more than once, he was converted, he was sent abroad. But nothing good came of it all, and he came back from foreign parts more debased than ever.

When I was first asked to take him in hand he was depressed by a recent bout. There was still something suggesting command in his features, but his mouth was weak and gross, and his manner ashamed and almost servile. His father had died and had practically disinherited him, he was in the position of receiving charity from his mother and his brother, he was nearly forty years old, without a work and without a position in life, and he was disposed to be humble. Still, his mother and the rest of the family were at the old mistakes, and it was with the greatest difficulty that I persuaded them to take up a very strong position and stick to it. A document was drawn up, which included my opinion that the patient was suffering seriously from the effects of his habit, and the various signs of his mental weakness were enumerated. This was shown to the patient, and an alternative was offered him. If he promised to remain a total abstainer, and to enter Mavisbank for six months if he took drink, his friends would support him. If

he would not consent to come here in the event of his taking drink, his mother would refuse him access to her house (this on the threat of the others that they would leave if she received him), and stop all money supplies, and a round letter would be written to acquaintances and friends that to receive him would be an unkindness, giving the history of his drinking as the reason for their action. This document was signed by the mother and family, and, at the first sight of it, the patient signed a written acceptance of the first alternative. The man of arrogance was brought low. The procedure, I believe, had really convinced him, and he came to Mavisbank, in that sense, voluntarily.

When he came to us, he made himself very agreeable, but the weakness of the man was more than ever apparent. In particular, he displayed an inordinate servility to the good opinion of other people. Indeed, I have rarely seen anyone in whom it was so strong. He seemed to strain to catch the echo of a compliment, and the slightest expression of an unfavourable opinion occasioned him great discomfort. One was able to appreciate how hard he would find it to refuse a neighbour's offer of a drink. Bodily he was in excellent health. In earlier years he had suffered from a weak heart, which we were told was the result of an excessive strain at sport, and which was not improved by heavy smoking and drinking. But while he was with us he scarcely knew a moment's bodily illness, and he worked hard at all sorts of manual and head work. He was clever at sums and at outdoor work—not at anything else. He had a general intelligence as regards the ways of the world, which was remarkably meagre considering the experience of him. In fact, the prevailing impression, after seeing him every day for half a year, was that he was weak in intelligence as well as in will. He could be cheated by even insane patients, as was evident he often had been by anyone who was careful to flatter; he believed very incredible things; he told still more incredible things, and evidently supposed we believed them; he occupied his mind with trifles like a woman.

Seventh broke down more than once while he was with us, for after the first few weeks we allowed him to go about on his own account. His friends did not compel him to stay. He has been gone for more than a year now. At first he had occasional breaks down, but latterly he has done well, and has just been taken into partnership in a promising

business. This man was coerced into sobriety, for, like his kind, he is a coward. The most hopeful thing for him is that he will be alongside of someone who will have a position in which he is indispensable to Rob Seventh, and then bully him. He has something approaching to panic at the suggestion of being "shown up" publicly, which is part of his overweening desire to woo popular opinion. Now that he has given up drinking, there are better accounts of his general character. He is good-natured and considerate in trifles, affectionate, and generous, which is what some of his friends say he always was before he was spoiled.

The last accounts, two years after discharge, are entirely favourable—total abstinence, hard work, business success—and he has married a good wife.

MR EIGHTH, ALCOHOLIST, SPORTSMAN, CARDIAC INVALID.

A case of many years duration. A case of cardiac strain. A case with an organic excuse for idleness and drinking. A case for stern treatment. A case of acquired maliciousness.

Charles Eighth was in many respects like Rob Seventh, and they were friends in earlier years. Neither of them seemed surprised to find the other at Mavisbank. Eighth was the abler man of the two, though his chances are not so good. He is an older man, more unscrupulous, more sodden, and he has a bad heart, from which he does not seem likely to recover. He has an organic excuse, like Mrs Sixth, to explain his drinking, and a character like Rob Seventh's to welcome it. He is a married man, moreover, and his wife is not a helpmeet.

The household of which Charles was a member was devoutly brought up and well educated. More than one member of it has made his mark, and Charles promised to be at least a respectable success. When about nineteen or twenty, however, he attempted a day's very severe athletics without previous training; and from that day he has been a done man. At night he was tired, as was natural, and no

one was alarmed. But as the days wore on and the tiredness did not depart, it became evident that the stress of the contest had been of serious effect, and it was discovered that the strain had occurred in the heart.

It is in keeping with what we know of dilatation of the heart that the strain of severe exertion, without previous training, is enough to account for a sudden and a transient failure, or for a lesion which leaves the patient for ever unable to undergo severe exertion. That it accounts for Mr Eighth's weakness I, personally, have no doubt. But what happened it is difficult to say. Most men would, I think, agree that over-distention was the first factor. Rapid contraction of the muscle wall on a large volume of blood, rapid return of an excessive quantity of blood, and perhaps incomplete emptying during systole, are enough to cause dilatation, or slight laceration, or both.

The symptoms in Mr Eighth's case were that, as has been said, he felt tired for days after the exertion, and that that did not entirely pass off. There has not been pain (which perhaps precludes the notion of a laceration). He has often a sinking feeling, quite limited in time and definite in its subjective character. More often he suffers a general weakness, apparently akin to the lassitude which so often follows influenza, and then he feels entirely listless and disinclined to undertake anything. Exercise, which is not severe, does not seem to affect him badly. He is most subject to the sinking feeling and the general weariness at night, and it is sufficient to keep him very much awake. His disability comes and goes unaccountably. He will be well for many days, perhaps for a month, then without obvious reason he begins to feel bad, and will not recover from his depression for a while again. Digitalis and ergot with strychnine have a very good effect. Again and again I have seen the mixture act so well as to have the effect of a sleeping draught after half an ounce or more of paraldehyde had failed.

It is interesting to note the resemblance between Mrs Sixth's symptoms and Mr Eighth's. These cardiac lesions of unknown pathology are worthy of much consideration. They are extremely common in the insane.

It was not long after his strain that Mr Eighth took to drink. He had lost all his keenness for business and other higher pursuits ; he was always in a state of mind which we

describe when we say "we can't be bothered," and whisky supplied the necessary energy. The habit continued for years. Though he knew what was happening, he had not the energy to exert himself to stop it. So at last he lost his position and his character. Then he took to unscrupulous methods of making money, even to criminal practices, and received the charity of his friends with little compunction. He came to us under their threat that otherwise supplies would be stopped, but he was very near delirium tremens, and he was glad to come. He has never expressed any desire to recover from his habit, and on the contrary has often denied the likelihood of our doing him any good; but he does not care. He is fat and easy going, and does not bother his head much further than the prospect of the next meal, or of the next piece of spicy gossip.

The present is his second visit to Mavisbank, and it is very much to be feared that it will not be final. And yet there seems to be no sufficient reason why he should not do as well outside as here. He is free to go all over the countryside at present, and even goes into town with money on a small scale; but though he has been doing so for months we have had no reason at all to suspect that he has been drinking. But it is a common experience that patients do relapse when they go away, though they may have been abstaining for a long time in the asylum. It is hard to explain, but at all events the fact that they remain sober while here, though they have full liberty and freedom from complete supervision, proves that the impulse to drink is very dependent upon circumstances. If there were a crave, in the accepted sense, we dare not trust our patients abroad without an attendant. These facts may further be held to indicate that the management of drunkards at home is not good, and, indeed, that is in general the fact. If this patient, for example, were given to understand that he was on his trial, if he were as closely observed at home as he is here, if he knew that the first time he tasted drink, supplies would be immediately stopped, and if some deterrent could be devised and made effective when required, it seems likely that the same good result would be achieved at home as in an institution.

In Mr Eighth's case, there is the further difficulty that he is one of the few patients I have met who take a great delight in mischief-making. He took pleasure in subverting

discipline, in inciting to disobedience, in upsetting other patients, in circulating malicious reports about people in the place. Such an access of positive viciousness betokens a deeper degradation than does the mere absence of good purpose.

When he left, I had no suggestions to offer except what was usual—that the patient should be dealt with very sternly, and sent to an institution whenever he rebelled, and that, in addition, his heart should be under constant supervision.

The last accounts of this patient, eight months later, are that he is much improved as regards drink. But he is still an idler and a malicious gossip, and he is not an abstainer.

Still later, it is suggested that this patient has, in addition to drinking, taken to narcotics.

FOUR DEGENERATE ALCOHOLISTS.

GEORGE NINTH, Alcoholist, Vagrant, Reprobate.

A case perhaps of moral imbecility. A case of strong interest in low pleasures. A case of defect of common decency.

Ninth was born to be a gentleman, he thought, in that nature had saddled him with a strong disposition to loaf, and his people and his cleverness had supplied him with money. But in that nature had forgotten to put the other necessary ingredients into his character, and, in particular, omitted to endow him with honour and self-respect, and even common decency, she may be said to have failed to prove Ninth's contention. It is perhaps enough to enumerate one of his achievements to show that he was indeed a low-class person, and incapable of filling the role of gentleman. When sober, he was not much worse than his neighbours, except that he neglected his wife and did not even take pains to prevent her incurring the disease to which he had exposed himself. Also, he neglected his business and reviled his neighbours often to the point of slander. In general, he had a pronounced gift for enjoying the privileges of all his relations and for neglecting the responsibilities. When drunk—which was frequently—he was of the coarsest. His language, even in the presence of his wife, was very low, and his habits were not less filthy. I do not remember ever to have seen a more loathsome spectacle than he presented on one memorable occasion when I was sent to his rescue. He had left us, discharged by himself, and we heard nothing of him for days. Then I received a request from his law-agent to call at a certain address and see Mr Ninth, and, if possible, take him back to Mavisbank. I found him three stairs up in a common lodging-house in the slums, and the sound of a drunken chorus, very much out of tune, prepared

me for the worst. The room in which he was was a small one, but there were half-a-dozen people in it, smoking and drinking—a mixed company of jovial men and women. Most of them evidently mistook me for a sheriff, for they beat a hasty retreat. The bed which Ninth occupied was a box-bed, filthily dirty. He had occupied the bed for a week, night and day. Mr Ninth wore the same shirt which he wore when he left us nine days before. He received me gladly, though he was not actually drunk. He was beginning to long for a change of air. As soon as we could get him into clean garments, he came away quite cheerfully, paying handsomely for his week's entertainment. He was quite sensible of what he did, and could walk straight and speak without confusion and articulately. But he was very shaky and very weak, and admitted that he still heard the singing of his late friends, and was still stifled by the stench in his nostrils. Next morning he still had these persistent sensations. He was also infested by some of the parasites of the slums, and was not so sure as we were as to their being real. He took the whole thing as a matter of course, only supposing that he must have been "as drunk as a lord" to get himself into such a mess.

Now, some will say that what a man will do and suffer when he is drunk is no criterion of what he will be capable of when he is sober and in his right mind. From that opinion I would dissent. I do not believe that a man brought up to appreciate cleanliness of mind and body, who likes his morning tub, and who has a real preference for fresh air, could endure for one day and night what that man Ninth endured for seven, though he were as drunk as fifty lords. Cleanliness and decency become organised in the nerves of men and women who are capable of appreciating them. Ninth, we may rest assured, was not. Cleanliness and decency were mere expedients to him; he was clean and decent at times, not because of any preference, but simply because they were necessary to society. A great many men and women are not far removed, in their instinct, from the ungroomed and contented beast, and such contentment with uncleanliness may be taken to indicate moral degeneracy. No one who is dowdy and dirty may be assumed to be honest or moral. There are exceptions of course, and the converse is true, that many base natures take on the veneer of a pleasant and clean person. But the fact

remains, that the average man of uprightness and self-respect is fairly clean.

This loss of interest in personal appearance and contentment with dirt and squalor is very common among drunkards. It is an interesting example of what we might call alcoholic dissolution of the respectable character, a disability in a recently acquired and not very deeply organised function. (Presumably our ancestors, not very far back, were dirty.) There, then, is another hint for the general practitioner, who, when he sees someone of his flock become squalid and nasty, should conjecture that perhaps the man or woman has a vicious habit which is undermining self-respect.

In this case the early history proved that the depravity was not merely the result of drink. Even in his sober days he had been capable of much dishonour. His case is one whose social complications forbid the publication of details. In any case, there is no psychological interest in them to redeem their unsavouriness.

The case is reported—as all these four cases of degeneracy are—to illustrate a type which is fortunately not common in middle-class society. A great many alcoholists are not gentlemanly by nature. But Mr Ninth was much worse than that. We observed his mind very carefully, and apparently there was nothing so evil in life as to revolt him. He knew how to keep himself safe from the law. But if it promised pleasure, and was safe, any baseness would come easy to him. He was grateful for his rescue from the den of thieves. Yet he went about among us with his head as high as before, spoke about it freely to attendants and patients, and enlarged upon the kind of its pleasures. There was no shame in him, not even a physical disgust at the thought of that week's debauch, though he remembered the details of it. Yet nothing that may be printed could convey an idea of the abominableness of that place—its filth, its stench, its indecency.

I think it is safe to say that so great a lack of good instinct is rare in our class. At all events, though high-class alcoholists are numerous and a more average type of patients abounds, I have with great difficulty discovered four cases in our records which can fitly be included in the degenerate group.

After he discharged himself, Mr Ninth resumed his old habits, and like some others, has taken freely to narcotics.

Mr TENTH, Alcoholist, Sportsman, Homicide.

A case of drunkenness in a man of murderous disposition. A case of remarkable allegiance to a promise. A case of a very dangerous husband.

Tenth comes of a family with none too good a record. They are hot-headed, hot-blooded, hot-tempered people, with a touch of queerness in their character. Our patient maintained the reputation of the family, and his queerness took the form of drink, which also was not an entirely new thing in the family. After many years of excess, his brain became dangerously unstable, and he came to us after having fired a gun through his own front door. He was a sinister, dour man, one of the very few patients with whom one must be on one's guard for fear of treachery and violence.

When I have said that drinking was not new to the family, one is stating a simple truth which applies with equal justice to a large number of families of that time and locality. One does not necessarily mean by it that anyone of the family had been a notorious drunkard or in public disgrace or even disapprobation. On the contrary, the Tenths were just as their neighbours in this matter of heavy drinking. They were border farmers, well to do, and of old standing. In these parts it was the custom always to drink heavily in the market town on market days, and in each other's houses on other days. The custom has not quite died out, but the manner of it and the effects of it have changed in some respects. In those days men sat down to drink and kept at it steadily the whole night long. There was less of the hotel bar drinking, more of the round-table toddy conference, in the fashionable method. One can see it in some houses still. After an early tea and a chat on current topics in the farming interest, the blinds are drawn and the lamps lit, a trayful of toddy glasses and ladles are brought in, and the company just settles down to it. But the heads of that generation were stronger, and perhaps their liquor was less fiery. There was more stupidity as the night wore on, and less excitement than we see now. There is hardly a market town on the border now where the farmers can spend a night together, and drink as freely as of yore without a more

or less serious quarrel or breaking of glass. It was easier to the last generation.

Tenth was one of those whom the traditional customs of his people found wanting. He had not a head for drinking, and his attempts to cultivate one were disastrous. He was a good shot, a keen curler, a hard rider, and a lazy farmer. He and his brothers inherited a good fortune, as the fortunes of farmers go, but he soon got to the bottom of it. Meanwhile, before he lost his farm, he had taken a young wife. It was a marriage in haste, and there was no great leisure about the repentance. The wife had fondly hoped that she would be able to cure the drinking habits, of which she was well aware when she married him, but her efforts really made him worse. She was a devoted woman and a sensible, but no amount of sense or of tact could have reconciled Tenth to his choice after the first few months of novelty. There was a rapid descent on his part from indifference to neglect, and disgust, and loathing, and violence. He was and is an irritable man, and dangerous in his passions. Again and again they came near to a terrible tragedy, and they are not far removed from it now.

It was Tenth's violence which brought him within reach of treatment eventually. He was too proud a man ever to have asked a doctor to help him to stop drinking, and would sooner have gone to the gallows at that time—as was not very unlikely—rather than become a voluntary patient in an asylum. But he had locked his wife out of the house at night sometimes, and once in very stormy weather; he had beaten her and kicked her, and ill-used the child, and he had said many vile things about her so often that he came at last to believe them. So his mother, who had the purse from which he drew his allowance now that he had spent all his own, had him certified as insane and sent to Mavisbank. Her doctor was a bold man, for if Tenth had realised what was being advised, the chances are that there would have been bloodshed. He was a bold man also in that he did not wait until the effects of drink had worn off and the brain had cooled into sanity again. He took him as he found him at the end of a long bout, and certified him and packed him off—too ill for the moment to offer serious resistance.

The case is interesting from the technical point of view, for though the patient was certainly insane in the sheriff's sense when he was certified, he was so far recovered within

a week that it would then have been impossible to put forward evidence of a mental state which would have satisfied the sheriff. I have always admired the skill with which the doctor chose his time—at the end of a bout when the patient was now sober, but before he had had time to recover from the mental effects. It is easier to keep a patient in the asylum than to put him in, because if there are undoubted signs of mental failure—and what drunkard has none?—they are rightly regarded by the commissioners in lunacy as signs of an incomplete convalescence. But symptoms which are enough to detain a certified lunatic as a convalescent are not enough grounds for certifying a free man.

When he came to us Tenth had a few fugitive delusions, chiefly about his wife's disloyalty and her intrigues against him; he was forgetful and stupid, and facile and very irritable. He took his transmission to the asylum with an unaccountable submissiveness, unless it was that he recognised that he had gone too far and had got a fright over the affair of the gun. We took care, of course, to point the moral that he might easily have found himself in prison instead of in the asylum. But he has never to this day acknowledged to any of us that he was insane or irresponsible, nor has he ever owned to any feelings such as remorse or shame for his drunkenness or for his ill-treatment of his wife.

During Tenth's visit to the asylum we were fortunate in having plenty of curling, and that kept him in a passable humour. After the first fortnight he became less irritable, but was always dour, though he sometimes expressed gratitude for what was done for him, and eventually even went so far as to offer to come back if it were necessary. Confinement and control had lost its pains on a closer acquaintance.

At the end of four months we allowed him to go. He was doing very well. His wife had come to live in the neighbourhood, and he went out to see her, and on other errands beyond the grounds, and we had not any reason to suspect that he was drinking. There was now almost nothing that we could point to as insanity, except very slight symptoms such as very many sober citizens exhibit. His wife thought well of his chances, and he himself was of course confident and very indignant at the idea of being detained as a lunatic. So he went. It was a mistake, however, which we had early cause to repent.

For several months after his discharge, Tenth lived a fairly sober life. He was, however, not abstaining entirely, as every drunkard ought to do. Within the year he was as bad as ever. He was drinking as much as before, whenever he had money enough to buy liquor; and he was more cruel than ever to his wife. At the request of his mother I paid him a surprise visit—not without some misgiving as to the nature of the reception he would give me. I found him drunken, able to walk straight and to speak coherently, but obviously soaking and very nervous. He was just on the verge of hallucinations, ready for evil sights and sounds, looking round furtively, straining his ears to catch expected noises, but not apparently realising his expectations. To my great surprise, I was able to convince him that he was again about to become lunatic unless he stopped drinking; and he knew enough to understand that his next visit to the asylum would not be a short one. I only saw him for half-an-hour, and we were alone at the interview. But before I left he signed a written promise that he would be a total abstainer for six months, or, if he broke his pledge, come back to Mavisbank for a period of not less than six months. At his request, I gave him two days' grace before he began this test. Then two strange things happened. When his wife returned he told her the news. That was strange. Then he drank as hard and as fast as his means would allow, but stopped on the day appointed, and did not touch drink again for six months. That was very strange. It shows a remarkable power in a drunkard of so advanced a stage, for he got practically no help from anyone. He was not the man to be helped. This pledge has been already referred to, p. 8.

At the end of his period of probation I was asked to see him again, but this time I could make no impression of any value. Strange to say, his sobriety had not at all improved his relations with his wife. She, poor woman, was alone in a solitary country house with this drink maniac, for no one would stay with him—not even a hired servant, and indeed the price must be long to induce anyone to share his roof, unless out of compassion for his wife. She was now expecting a child to be born, and that proved an incentive to brutality in Tenth's mind. His taunts and even his blows had been worse during the last weeks of his sobriety than in the earlier days. But nothing would induce him to

remain an abstainer. I tried to show him, as I had often done before, that if he began drinking again there was no saying where his mad impulses would end. I warned him as plainly as he could be warned, that if he drank, there was quite a good chance that he would end at the gallows or near them. He did not deny the risk, but he preferred to take it, since drinking went with it.

Our last news of him is as bad as could be expected in the short time of drinking which he has had. I have tried in vain to induce his wife to leave him, rather than run the risk of a serious assault; and I have tried in vain to induce his mother to starve him into sobriety. But, as so often happens, conjugal and maternal affection are too short-sighted and too eager to be guided into any such policy. That man will never, unless he suffers dementia, entertain kindly feelings or even be capable of civil manners to his wife and mother—both of them excellent women—but they will stick to him and slave for him and pamper and spoil him, until they die or are half killed. I call him homicidal, not because I know him to have killed anyone, but because he is very capable of it. He not only is subject to passionate outbursts, in which he might do anything dreadful, but also in his sober moments he entertains the idea of violent means of escape from unpleasantness.

ROGER ELEVENTH, Alcoholist, Criminal, Bully.

A case of brutality with drunkenness. A case of police offences. A case for the Inebriates' Act, 1898.

Eleventh came to us looking very mild and sheepish, and prepared to do anything and everything we told him in order to escape his "curse." His wife came with him—an eager, exacting little woman—who enquired into everything and found fault with all the assurance of a dozen medical superintendents. Roger himself was apparently indifferent. This incident is mentioned, because it throws a ludicrous light on subsequent events. Had Mrs Eleventh come alone to prepare for her husband's admission, we should certainly

have gathered from her careful provision for him that he was of the daintiest. He was to have clean sheets whenever he wished them, he was to have a good view from his bedroom window, the room was to be large and airy, he was to have his meals alone if he wished them, his food was to be of the best and not simple, he was to be allowed a bath every day, we were to give him a special attendant, who must be an intelligent man with whom Roger could hold enlightened conversation ; for all of which they were quite prepared to pay at the rate of a hundred pounds a year. If Roger had not been standing by meekly admiring all these arrangements, and acquiescing audibly when appealed to, one would have pictured him an over-sensitive man who could not speak up for himself, a highly cultured man who delighted in serious conversation, a dainty man who spent half-an-hour on his teeth and finger nails every morning. Instead, we saw a stumpy man of very coarse-grained skin and dirty hands, obviously uncomfortable in his Sunday clothes, and saying very little, perhaps because when he did speak he generally managed to use bad grammar. In short, there has not often been a person in the house who proved so repulsive in his manners and conversation. Before he left we were picking out for him the attendant who was least likely to be corrupted by the drunken dishonesty and abominableness of the man.

Such descriptions as these seem to some to indicate that an asylum is a shocking place so far as the society of the patients is concerned — a kind of cave of Adullam, where mostly thieves and reprobates are gathered. But it must be borne in mind that we are purposely selecting the black sheep of the flock, and that we are choosing from the population of five years. It has been easy to find examples of ordinary drunkards, but these low-class patients are fortunately few and far between. As a matter of fact, the population of an asylum is, as regards moral character, no worse than the society in which we daily move. There is, however, this difference that in the asylum we look close into the habits and nature of our associates instead of passing them by with indifference as we do in the street, in business, or in the drawing-room.

Eleventh was one whom even an inexperienced man would pick out as a person not to be trusted. His manner was very sinister, he did not freely meet your look, he mumbled as he spoke, as if he feared what his lips might let

drop, and the coarseness of his build and features suggested the criminal mind. I never heard him say anything which might be said to express a good sentiment. Before he had been a week in the house everyone, except the most facile, looked askance at him and kept him at a distance. He was a subject of whom I would have no hesitation in saying that he was constitutionally immoral, that is, he had an organisation which allowed of a full and clever satisfaction of the beast appetites, but which had no top storey, such as is an emotional and rational basis of morality. He did not feel disposed to spontaneously help anybody; he only felt hungry, or thirsty, or sleepy, or tired, or amorous. Nor did he conceive any reasons why he should go out of his way to do anything other than satisfy his bodily inclinations, except that he realised some of the necessities of social life as they were impressed on him by the impulsion of punishment and reward. He realised that to eat he must work, to keep out of the police court he must obey the law; just as, when with us, he realised that he got no tobacco unless he did the work we prescribed, and got no breakfast unless he rose in good time.

A few of this man's misdemeanours are worth recording. He was a case over whom his friends held a whip hand, and there was little chance of his leaving before a given time, so that we were able to keep a firm hand on him for a time. His first chance, and our mistake, was when he concocted a letter from his wife and sister asking him to meet them in Edinburgh. Very foolishly we believed him, and trusted his clever wife to see him safely home. As it transpired, they had not invited him to Edinburgh, and returned home, deliberately leaving him in the city. They assumed that as I thought him well enough to go to town he must be well enough to return. Next morning, being Sunday, we received a message to the effect that our patient had been bailed out of the police court by a friend who was now bringing him home. Unfortunately he persuaded the friend that his company was unnecessary, and returned alone, via Roslin, where he became very drunk. His offence had been that he entered a shop in a low locality in the old town, where a girl at the counter attracted his eye, and to her he proffered his drunken caresses. Someone from the back premises came to the rescue of the girl and tried to turn him out of the shop, but Eleventh seized upon a stack

of jam pots which stood in the doorway and kept up a lively fusilade with these until the police arrived. The policeman's account to me of the bloodsome appearance of the jelly-and-jam-bespattered scene was very graphic. Fortunately no real blood was shed, and on the Monday morning he got off with a light fine.

At this time Eleventh was suffering badly from itch, which was in his family when he came to us. His wife and children and the nurse had recovered, but, despite the same remedies, he had not. Presumably this was another example of the bad healing powers of alcoholic tissues.

"Paresis of Phagocytosis" is held by some to account for it. We must find some pathological explanation of alcoholic inertia in, say, a traumatic ulcer in alcoholics or in alcoholic pneumonia. Certain it is that surface wounds, like pneumonias, do badly in drunkards. It was formerly taught that a general condition, cardiac or nervous, accounted for the poor recuperative power in fever, and that that and the presence of alcohol in the blood interfered with the healing processes in the skin and subcutaneous tissues. We are taught now, however, that the bad effect of alcohol, not only in surface wounds but also in pneumonia, erysipelas, and other acute inflammatory and suppurative conditions, is also due to the direct effect of alcohol on the cells as well as to an indirect atonic action through the nervous system—(Woodhead and others). In alcoholic poisoning of an acute kind, and in slow soaking, the epithelial cells are said to undergo cloudy swelling, going on to fatty degeneration, and, in such breaking down of cells there is the usual access of leucocytes, whose function is to absorb and carry off effete matter. But alcohol, we are now taught, has a directly bad effect in this process of phagocytosis, in that not only does it bring about granular fatty changes, but that it repels the leucocytes which come to clear up the debris. In tetanus, in hydrophobia, in snake-bite, in anthrax, in pneumonia, in erysipelas, and in other general microbic affections, phagocytosis is impaired by alcohol. Similarly, in localised inflammations and in abscesses, the leucocytes are essential to the clearing up process; and alcohol, except in the most minute and isolated doses, is now voted bad in all these states, because it "repels" the leucocytes and drives them off to a long range or beyond it. In the case of simple alcoholism, the same, in effect, holds good. Probably the pathology is threefold—the tonic depression, defective phagocytosis, and alcoholised tissues. One fact more than any other has impressed me in the treatment of the alcoholic state as compared with that of other vice diseases. That is, that it is invariably wise to stop alcohol abruptly and not to taper it off. Taking habitual or spasmodic drunkenness to be the early stage of alcoholism —with sleeplessness, stupidity, nervousness, irritability, fancifulness, loss of control—we find, as we find in the more advanced stages, that the withdrawal of alcohol is immediately followed in most cases by a marked general improvement both of bodily and mental health. The effect of alcohol on the nervous system is probably that of a direct nerve poison primarily, and secondarily that of a phagocyte toxin.

In the brain the scavenger processes are undertaken by the lymph-connective tissues and by the leucocytes in varying degree in different states, and observers are at variance as regards the importance to be attached to the various kinds of cells as scavengers. But the fact remains that alcohol not only induces degeneration of the protoplasm of the nerve cells, but also that it impairs the functional activity of the phagocytes in clearing up the debris of the neurin, which it itself occasions.

As Eleventh's itch was not healing, it was resolved, with the approval of his doctor, to give him a trial at home. It was expected that the change of air would do good, as he lived by the sea; and this proved to be so. For about a fortnight he lived soberly at home, and worked well at his work. Then he was sent back to complete his six months, and, as before, he was left stranded in Edinburgh without our being told by what train he would reach the city. The result was even more disastrous than on the previous occasion. He began drinking in the town, and brought a big bottle of whisky with him. On his way home he committed several violent assaults, some of them provoked, some of them not. Alcohol had the effect of making him very obtrusive and pugnacious.

When he was in his bedroom, Eleventh was peculiarly vicious, attacking everyone fiercely who came into the room. The whisky bottle was taken from him; but owing to his violent resistance it was thought better not to search him further. Though this seemed the best thing to do at the time, it had very bad results. He was securely locked in, the shutters locked, dangerous things removed, and all possibility of fire prevented. Next forenoon I was hurriedly sent for to see another alcoholic patient—a very silly, facile man, a tool of Mr Eleventh's. I found him comatose, breathing stertorously, and smelling strongly of Paraldehyde. Eleventh was in an earlier stage of Paraldehyde intoxication, and had in his possession a four-ounce bottle of the drug, with about an ounce still in the bottle. He confessed that he had shared what was consumed with the other patient. It was our mistake of course that we had not searched him the first thing in the morning; but we may as well recount the difficulties which we provide for ourselves as those which we cannot obviate. The second patient's stomach was washed out; while to Mr Eleventh an effective dose of apomorphia was administered. The former immediately recovered from his coma, sat up and talked, and did not go to sleep again. We succeeded in recovering a good deal of Paraldehyde

from the stomach; but it greatly surprised me that the washing out had so immediate and continued an effect. Mr Eleventh was greatly shocked by the effect of the apomorphia, which probably had a successful result as a deterrent.

A few days later, owing to the close supervision put upon him and to the bad repute into which he had brought himself, Eleventh gave me the statutory three days' notice that he was about to leave Mavisbank. He did so despite the pressure of his friends who were sent for, after a stay of less than three months.

This case again bespeaks, in its drunken conduct, an inherent debasement of character. No one of decent nature would, however drunk, commit the kind of assaults of which Mr Eleventh was guilty. We have not heard news of the patient since his return, but it will not be the fault of relatives in this case that he does not live soberly. If he is not drinking, however, he will be doing something equally bad.

A survey of this case makes it clear that we, as well as the friends, mismanaged it. We treated him as we treat well-intentioned patients—trusting them as much as possible after they have done fairly well under supervision. That is the method under which most good is got for most cases who come for comparatively short periods. In this case we should have recognised the impossible character of the man, and should have kept him tight by the head from first to last. He probably would not have stayed even as long as he did, but that would probably have been the best plan with him. In any case, there was no question of doing permanent good in the time at our disposal. This kind of case requires something equivalent to the training ship for refractory boys.

MRS TWELFTH, ALCOHOLIST, MORAL IMBECILE, VOLUNTARY MANIAC.

A case of a "moral imbecile," aet. 27. An alcoholist, homicide, suicide. A curious form of insanity—conscious mania. A period of delirious mania with hallucinations, resulting in recovery.

To know and to understand Mrs Twelfth in all her phases would mean that one had mastered the subjects with which

we deal—the insanities and the vices. There is no known form of wickedness which has been habitually repulsive to her mind; she found pleasure, as a savage might find it, with fresh and open enjoyment, and with a naïve disregard of accepted motives for virtue. Also, during the period of which I write (more than three years), she showed signs of each of the recognised insane states of mind. Her case is absolutely unique in my experience—the most interesting, the most difficult, the most dangerous. One might write a whole volume, recounting Mrs Twelfth's sayings and doings, and, with a little art, the record would be neither dull nor uninstructive. Only by making our patient an important character in a novel, or in a drama, could justice be done to the part she played in our by no means dull community: how she dominated all who came in contact with her, what a strife she created, how constant a terror she became, by day and by night, lest the tragic possibilities of her nature should suddenly be realised. I have never known a patient who excited so much pity, so much affection, so much fear, so much care, so much severity, as Mrs Twelfth. But to tell how that all came about, and the relations which developed between the patient and her various neighbours, would be to unpardonably invade privacy and to hurt the feelings of a few chance readers. It is therefore desirable to present the case in the more bald and conventional form.

As a guide to the period to which this account of Mrs Twelfth refers, the following calendar may be useful:—

CALENDAR.

1896. Abroad, dissipated, vicious.
1897. At home; drunken; depraved.
Spring—Admitted to Mavisbank.
Summer—Voluntary resident in the asylum; vigorous; cheerful; compulsorily sober; amenable.
Autumn—Vigorous; rebellious.
Winter—In conscious mania; very rebellious; violent; homicidal; suicidal.
1898. Spring—In conscious rebellious mania of less degree.
Summer—Partially recovering; resident at the coast; amenable.
Autumn—Depressed; resistive; violent; suicidal.

Winter—In deepening insanity; in delirious mania; hallucinational; suicidal.

1899. Spring—In apparent dementia; confusional; hallucinational; melancholic; stuperose; impulsively maniacal.

Summer—Recovered; discharged; sober; respectable.

Antecedents.

Mrs Twelfth came of a very peculiar and very neurotic family. Several near relatives have been markedly eccentric, or inebriate, or insane.

Previous History and Character.

Physique.—No illness of an unusual kind is recorded. The patient was big, and about as strong as most girls. She was considered "highly-strung." Her chest was supposed to be delicate, so that she usually wintered abroad. As a girl she had a severe pneumonia. There were signs of a syphilis of unknown date. Just before admission there was pelvic disorder of an inflammatory nature.

Intelligence.—The patient's acuteness was more than ordinary. She understood things readily. She was an apt scholar, clever, but not accomplished; a witty companion, more amusing than kind; of ready and sure judgment *en passant*, but without convictions. She read very little; could speak some French, but not German. She had no interest in general knowledge.

Emotions.—The patient was capable of many light and frivolous emotions; might be said to live for little pleasantnesses; was prepared to try any experience which promised pleasure; and had a capacity for enjoyment which was above the average. She was, however, prone to bouts of fear, and subject to fits of gloom without any reason save some (implied) physical cause. She had no abiding sentiments; was singularly lacking in filial reverence; and appears to have been entirely devoid of domestic and social ideals.

Affections.—As a girl and as a young woman, Mrs Twelfth may be said not to have had friends. She was attached to one person—a lady—all her life, and still is.

That lady is a relative who has been kind to her and who has done most to guide and to control her. At one time and another she has had pets upon whom she doted, notably a terrier dog which was her constant companion, and which she nursed unremittingly on his death-bed. His death greatly upset her mental balance. She still weeps for him, and often dreams of him and calls aloud upon him. She was more slightly fond of her baby, which was born in wedlock, was kind to the child, put her under a decent woman's care, tended her grave with some regularity, but does not mourn her loss. The patient has similarly been keenly attached to one or two people at odd times, women as often as men, and has lavished affection upon them, often *ad nauseam*, while the attachment persisted. She has always had an inordinate capacity for disliking people.

Purpose.—Mrs Twelfth has apparently never conceived any purpose other than to have a good time. Her home was unhappy, she was educated in a frivolous set at home and in France, and she has never appreciated respectability, much less conceived any dignified or very good ambition. She was always wayward and queer, often intent upon some quite foolish project, and perversely stubborn in pursuit of it. She had no notion of discipline, or of any persistence in effort apart from an immediate return in pleasure. She never had the patience to acquire skill in anything, though she was naturally gifted and apt.

Vices.—The vices of Mrs Twelfth's disposition will now be apparent. She had but little kindliness in her nature, despite her fond attachment to her pet animals and people. She had the instinctive shrinking from other people's pain, but would rather avoid it than minister to it. She had no scruples about untruth, if any object were to be gained by it, and she had a very elementary notion of honesty—little more than an appreciation of what was safe from a police point of view. She apparently has never been "in love," as that term is generally understood, nor has she been capable of a passion for a man, but only selfishly fond of some. Since an age, when the experience became possible, she has indulged in sexual pleasure without scruple, and earned a competent living for years thereby. As a girl she seems not to have taken to alcohol, but, in the midst of other vice, she eventually became drunken. Just before admission to the

asylum the sexual and the alcoholic habit almost wholly possessed her mind. These were the only things she cared for, and, when she could not easily have them, she clamoured for them and besought them without discretion and without shame.

Homicide.—All her life the patient has lacked that regard for the feelings and for the safety of her neighbours which is the normal safeguard. In her ecstacies of affection she hurt her pets, in her anger of later years, and in her half drunken humours, she was dangerously reckless of life and of property. But apparently she never schemed or lay in waiting to hurt anyone.

Suicide.—In girlhood Mrs Twelfth, in one of her attacks of gloom, refused all food and took to starvation. She has also slept in sheets which she had purposely soaked in cold water in order to bring on illness. The result was a pneumonia from which she recovered. In 1896, when living abroad with a lover, she became quite reckless on the death of her terrier. When alone she took brandy with her, sat near the edge of a high balcony, and trusted that she would fall over, intoxicated, and be killed without recovering consciousness. No accident occurred. She has for years hoped that she "would die drunk," the pleasantest form of death she could imagine. It is highly important to observe that her plans for suicide were peculiar. Though at the seaside, and often boating, she never tried to drown herself; nor did she contemplate conscious precipitation; nor a railway suicide; nor poison; nor hanging, or strangulation, or suffocation; nor laceration; nor fire.

Treatment.—When abroad, she was not much controlled by anyone. The man, whose mistress she was, pampered her, and made only occasional efforts to wean her from drink. He was anxious for her, and kind, but not firm. Subsequently she was under medical care, but discipline was lax, and she came under the notice of the police because of her obstreporousness. When brought home she was kept in bed part of the time, but she succeeded in obtaining drink, was habitually deceitful, and shamelessly sexual. These depravities continued during a short stay in a nursing home and during her last week's probation at large. In these last days she was put upon Bromide and Cannabis Indica. Her last intoxication she attributed to that medicine, and she persists to this day that the "green mixture" did poison her and

make her drunk. But a search of her room revealed whisky flasks concealed in her unused boots.

Spring, 1897 (*at Mavisbank*)—

Physique.—The patient's health rapidly improved. She gained more than a stone in weight, recovered her jaded appetite, acquired a good colour, and became muscularly vigorous.

Intelligence.—During this period Mrs Twefth recovered from the exclusive attention to sensations, which is the nemesis of alcoholic and sexual vice. Turning her attentions to affairs in general, she recovered her lively wit and general acuteness. There was still no interest in impersonal subjects.

Emotions.—There is nothing of importance to record during this spring. The emotional content was almost entirely that of hope—the anticipation of lingering desires subsequently to be realised. There was a notable absence of remorse and of other forms of grief or fear.

Affections.—Mrs Twelfth had a liking for several of her neighbours, did not select any one person as her pet, and did not make friends with animals. But she did not develop any very strong aversions.

Vices.—Viciousness was for the time-being in abeyance. She looked forward to vice to come. Her virtues were negative—a partly enforced restraint of evil propensities.

Homicide.—There was no violence at this time, and no apparent temptation to it. Mrs Twelfth was, however, quite indifferent to the comfort and the health of her neighbours.

Suicide.—No desire for death was expressed, and no attempt made or spoken of.

Treatment.—Supervision was complete; an outdoor life was enjoined; extra diet was given; the bowels were carefully regulated; iron tonics were administered.

Summer, 1897—

The above progress continued through the summer, and general treatment, including complete supervision, continued. Towards autumn the patient was very vigorous and active, and of a good weight. Her physique might now be described as powerful for a woman. (She was over 5 ft. 10 in.) Mentally there was greater general liveliness. There was still no remorse, and no virtuous purpose.

Autumn, 1897—

Mrs Twelfth's vigour was more than maintained during this autumn. Finding asylum life somewhat dull, the patient began to have recourse to mischievous attempts to arouse a little excitement. Her favourite amusements were—either to make a sudden bolt from her nurse, and, running rapidly, and with shrieks, to entertain the other patients by the efforts of the staff to catch her; or, having walked quietly to a far off corner of the estate, to sit down and absolutely refuse to come home. She openly boasted that, on the first opportunity, she would drink all the brandy she could pay for. As control was made more severe, by keeping her with others in a locked room and otherwise, the patient's temper became worse, and comparatively harmless mischief developed into serious rebellion. As winter came on she added destructiveness to her other frolics. She began also to be more rough with nurses and patients. She was afraid of some, and hated others; and now she selected one or other as a pet, was submissive to that one, showed her kindly attention, and was angry at any hint of unworthiness in her favourite. Her facial expression became strained and rather pinched; she lost colour; her muscles twitched a good deal, and her fingers clutched nervously at any anxious moment. Her digestion became impaired; she developed a slight cough; she became more constipated; menstruation was irritating.

Winter, 1897-8.

This proved a crucial and anxious period. In every respect the patient went from bad to worse until well on in the new year. With the spring she revived somewhat. The following detailed account must be read, with the understanding that it records a steady deterioration—the evolution of a conscious insanity.

Physique.—The patient gradually lost the vigour she had acquired. She became anæmic, and lost considerable weight. She was very susceptible to the feeling of winter, and often refused to leave her bed; but exposure to cold, and even occasional wettings did her no apparent harm. The capriciousness of her appetite, which she at first emphasised so as to give trouble, developed into a loathing of all food, so that tube-feeding was necessary. There was occasional sickness, and abdominal pain. Constipation was

extreme. Menstruation was irregular, delayed or too frequent, too little or in excess, and almost invariably exciting. There was peripheral tenderness, suggestive of neuritis, but without proportionate loss of muscular power. A pigmented rash slowly developed on her chest, which proved amenable to specific treatment, and her hair thinned considerably. Her vision was not impaired, and co-ordination in even fine movements—such as delicate needlework—was good. Headaches and neuralgia were frequent. The pulse became much softer than formerly, and smaller; reduplication and a systolic murmur became audible; but there was no syncope, no palpitation complained of, and no heart-hurry.

Intelligence.—As regards intelligence in general, there was nothing which is noteworthy at this period. But there was much which is remarkable in the patient's understanding, explanation, and recollection of her own conduct. The period was one of great excitement, and she was sometimes unable later to recall her exact words and to remember minute incidents; but, in general, the facts of the period were subsequently remembered with as much precision as is usual in sane life. During this period also the patient was pronounced insane by several medical men, including a Commissioner in Lunacy. The diagnosis was, of course, correct, in the sense that medical certificates might have been granted, so strong that no sheriff would have refused a warrant for the patient's detention. But it was Mrs Twelfth's conduct which was insane, not her intelligence. She had only two kinds of belief which might be called delusions. She affirmed repeatedly, of more than one person in the house, but especially of one, that that person —a lady—persecuted her; did everything in her power to make her unhappy; thwarted all her good intentions; purposely irritated her; maliciously slandered her. These were quite mistaken suspicions, but they are scarcely preposterous enough to be worthy of the name of insane delusions, as the term is technically understood. The other kind of statements had a sexual reference. She accused at least a dozen innocent men of improper relations with her. It is not even admissible to speak of these as beliefs. The statements were made in violent anger as a rule, they partook largely of the nature of malicious lies, or they were made in a spirit of devilry, so as to outrage the suscepti-

bilities of the nurses and others who heard them. The same humour prompted Mrs Twelfth to level the most shocking charges against the obviously proper ladies who were her companions.

But the patient's apparently delusional beliefs were not nearly so interesting as the psychology of her conduct. As will be presently explained, Mrs Twelfth's conduct at this time was violent in the extreme—ruthlessly destructive, homicidal, so as at times to be really murderous in intent, and suicidal. Of the majority of patients who behave as she did it is true to say that they do not know what they are doing. But Mrs Twelfth quite understood her acts, the object of them, the means employed, the probable consequences. Right in the middle of a furious struggle, if some humourous incident or other consideration "changed her mind," she would forthwith become calm, and when questioned she would explain quite coolly that she was trying her hardest to throw one's watch in the fire, or to probe one's eyes, or scratch, or bite ; and, if a chance offered, she would resume hostilities with the energy of an infuriated but intelligent animal. Moreover, the patient's violence was not only impulsive but often deliberate. She became extremely dangerous at her worst, because she lay in wait to injure people. On one occasion she kept the poker in her bedroom red-hot and came at the assistant with it because of his "insolence." His coolness fortunately saved him. But Mrs Twelfth meant murder, as she repeatedly admitted ; and, although she never said so to himself, she confessed later that she was glad she had failed. That gladness was not on her own account, but because he was very ill a few weeks after the incident, and she was moved to pity for him.

The explanation of all this violence was simply that Mrs Twelfth was now quite hopeless and quite reckless. A decorous life had no attractions for her, a dissolute life seemed beyond her reach. So she intimated that she had made up her mind just to let herself go. She believed me when I told her that, as a voluntary patient, she was still a responsible person in the eyes of the law, and that she would suffer the extreme penalties if she did any really serious damage. But she said she did not care ; that prison life would be a novel experience ; that hanging would be soon over. This deliberate choice was not constant. Had she been more insane she would have been less amenable

At times, when one found her in good humour, it was possible to persuade her to choose a more peaceable way. Such a choice was always with an ulterior reference. Quietness was to be the price paid for some promised pleasantness.

Mrs Twelth's memory during this period was not materially impaired. She remembered what was past; and in later months she remembered the facts of this winter. There was no confusion. There were no hallucinations.

This account, however, must be qualified by the note that the patient's intelligence was impared under the influence of sedatives. It was when sulphonalised that she expressed the delusional ideas referred to with the greatest emphasis and show of conviction. On one occasion, when being chloroformed to sleep, she fancied that her dog was in the room; and even when she wakened up and spoke sensibly to the nurse and to me, the hallucination persisted.

Emotions.—Nothing need be recorded as characteristic of this period in the way of positive emotion, except very active hate. Mrs Twelfth knew no joy at this time, felt no fear, had no remorse, and very little pity.

Affections.—The old fondness for the relative already mentioned persisted throughout this period. One after another of the nurses and patients had fallen from Mrs Twelfth's liking; but now a new favourite was installed in her affections. A nurse, more powerful than she, kind and wise in her dealings, firm and honest, gained an ascendancy over both the body and mind of the patient. The nurse's influence over her has grown steadily until the time of writing.

Vices.—As might be expected, all the vices of Mrs Twelfth's disposition became conspicuous at this period of desperation—disregard of the rights and property of others, deceit, untruthfulness, cruelty. There was a strong revival of sexual desire, and an unblushing expression of it. Her language was every day coarse, depraved, and blasphemous. She gloated over the thought of brandy, clamoured to get it, and repudiated vigourously the idea that she might by any possibility lose taste for it. But it is a remarkable fact that, having on one occasion made her escape with a little money in her pocket, she passed several restaurants without taking brandy or other alcoholic liquor, although twice she purchased some milk. That fact is established beyond doubt.

Homicide.—Mrs Twelfth now bit, scratched, and kicked anyone who roused her wrath, with an apparently complete disregard of consequences. She learned not to strike with her fist, because it hurt her knuckles; but she showered blows upon her nurses with any kind of weapon she could find; threw chairs, crockery, fire-irons, and other hardware; and, as recorded, attacked the assistant with a red-hot poker. It is, however, noteworthy that she did not actually inflict injury with the poker, and that she never used scissors to stab with, though she often had them at hand.

Suicide.—Early in this season, Mrs Twelfth was helping a nurse to gather the fragments of a vase which she had shattered. Like a sempstress she stowed the little bits in her mouth, and the nurse very properly warned her of the danger. Accordingly, Mrs Twelfth persisted from that day in putting into her mouth any dangerous or prickly thing she could find. It was only some time after the event that we discovered she had swallowed pins, fragments of windows she had broken, and other odds and ends. The habit became most stubborn, and, despite our greatest care, not a week passed in which she did not swallow something which should have seriously injured her. We were constantly on the look-out for signs of abscess or perforation. But it would appear that the alimentary tract, in some cases at all events, collects and enwraps injurious items. Mrs Twelfth was declining in health, there were vague abdominal symptoms, and her surgeon came to our aid. The patient was examined both awake and under chloroform. Nothing wrong was discovered except some enlargement and tenderness of the left ovary. Next day, with considerable pain at stool, Mrs Twelfth passed a mass, which the nurse described as a "knot" of faeces, hard, and closely bound with shreddy matter. It contained thirty-seven pins, two small bits of glass, two pen points, a shirt stud, a tin tack, and a few small bits of stone or coal. These had certainly been collecting in her bowels for weeks. It should be noted that the patient did not try to swallow needles. She also observed the rule that she did not destroy or swallow any of the ornaments in her room, or the nails for her pictures; and it was proved that she could be trusted with a set number of pins for needlework, and these she scrupulously guarded. Any little thing she could find or suddenly seize she appropriated.

As a rule she bent the pins nearly double before swallowing them, under a mistaken notion that they were "more apt to catch." She also tried to starve herself to death. She tried to induce pneumonia by soaking herself in water. The first time she got a hot-water bottle from us she swallowed the stopper, poured the water out over her bed, and lay down on it. She pled with me to give her poison. But we must note that, as before, she avoided the means of death of which the initial stages are particularly nasty.

Treatment.—The general treatment pursued at this period need not be recounted in detail. The patient was fed by the tube, laxatives were administered, tonics were prescribed, and potassium iodide. All manner of sedatives were tried, with curious effect. The patient's mother, a peculiarly sceptical lady, warned us that it was no use trying to drug her daughter, because the effect was always the contrary of what was expected. This proved to be the case in the altered nervous state in which Mrs Twelfth now was, but not during her quiet period. The patient welcomed anything in the form of narcotics. Their effect, as a rule, was to induce intoxication, which was usually good humoured. After a forty grain dose of bromide, Mrs Twelfth was drowsy, but when I felt her pulse she broke my watch chain in her attempt to throw my watch into the fire. After gr. $\frac{1}{75}$ of hyoscin hypodermically, she was "queer and silly," but threw an enamel-ware cup through the window. After one hundred and twenty grains of sulphonal in twelve hours she was still cheerful and lively when aroused, though she preferred to lie quietly, half asleep. After one grain of morphia hypodermically, she was equally talkative, though drowsy. These doses were arrived at after only a few preliminary attempts with smaller amounts. As has been said, sedatives induced greater mental derangement.

The spiritual or moral treatment, as it is called, was very important in this case. As regards supervision, everything was tried, except that I did not consider it justifiable to ask any nurse to sit up with her at night. It was eventually proved that all companionship aggravated the worst features of the case, until her "big nurse" gained her complete affection and respect. For some time Mrs Twelfth slept in a "naked room"—a room devoid of everything except

bedding. A long-sleeved jacket was tried, but the patient had a very sensitive skin. She tore her way out of any ordinary material, and, if a specially strong dress was used, she refused to sleep, and sat up all night and yelled. She did literally scream the whole night through on more than one occasion, with intervals for rest of only a few minutes. The more personal treatment was such as might be properly prescribed for a very wayward child. On the suggestion of her nurse, she was allowed to occupy a properly furnished room. That privilege, the pleasure of special delicacies at meals, and narcotics, were our usual rewards for good behaviour. Translation to the strong room—which frequently had to be forcibly accomplished—plain food, and the apparent withdrawal of sedatives, which were, however, often surreptitiously given, were the consequences of violence. Through all this period, however, nothing so greatly influenced Mrs Twelfth as the things that were said to her. Sometimes hypnotism was tried, and the patient became quiescent, though not deeply hypnotised; and in these moments, and on other suitable opportunities, serious talks were administered. The sermons, it must be confessed, were very elementary in ethic, but they were effective. Her bad humours were denounced, and her good self flattered; terrible consequences of evil-doing were predicted, and pleasantness lavishly promised as a bribe of well-doing. Then a time came when the companionship and the good opinion and the praise of her pet nurse counted as more with Mrs Twelfth than all the other influences we could bring to bear upon her.

Spring, 1898.

We may pass lightly over the three next seasons, as the interest of this case lies chiefly in a comparison of her mental states during winter. In this spring she continued as before, until the winter was past and the good weather came. With a return to open-air life she began to be less violent. Although there only resulted pain, and vomiting, and sometimes blistering over the abdomen, the patient still sought opportunities of suicide by swallowing pins or glass.

Summer, 1898—

A noteworthy interval occurred at this period when Mrs Twelfth was at the coast with her nurse. She occupied herself with housework, was at great pains to help her favourite

by every means in her power, and did almost nothing amiss.

Autumn, 1898—

With the onset of dreary weather a relapse ensued. We had tried to allow her the same liberties, and to afford opportunities for work, such as Mrs Twelfth had enjoyed at the coast. But she seemed incorrigible. Destructiveness, violence, dangerous hatred of the lady whom she all along selected as her *bête noire*, and suicide by the old methods, developed afresh.

Winter, 1898—

This winter was entered upon very much in the same spirit as the last, and apparently we had nothing to hope for but a repetition of the old worries. As it proved, however, there was a great difference. We shall speak of treatment first, because, in my opinion, it was largely curative and not merely palliative as in the previous winter.

Treatment.—By gradual stages we arrived at very large doses of the "green mixture" by day. Both the Bromide and the Cannabis Indica were increased. Our method was to bring the patient as near coma as possible, allow her for a day or two to revive, and then to narcotise her deeply again. It sometimes required doses of one drachm of Bromide and forty minims of Tinct. Cann. Ind., repeated at short intervals, to achieve the quiescence desired. Paraldehyde in two drachm doses was often given at night. Hypnotism was tried a few times early in the season. The patient would be reduced to a cataleptic state as regards muscles, so that she could not open her eyes, move her limbs, or speak, and she could be fixed rigidly in given attitudes. But she retained normal consciousness sufficient to remember afterwards what had occurred. A pleasant, sunny scene was generally suggested to her imagination, at which she was presumed to have arrived by dint of constant exercise of self-control. But on one occasion she was told to say what experience she would most enjoy, to which, after some consideration, she replied that she would like to die. A very lurid picture was then drawn of the tortures of those who seek their own death. The details of the sensations of dying under such circumstances were enlarged upon with the most graphic suggestion possible. Mrs Twelfth

was much impressed, wept bitterly, and did not forget the suggestion.

All through this winter her favourite nurse slept in the same room with the patient and spent many hours daily in her society. She was most persistent in her attempts to encourage the patient in well-doing and to distract her attention from hallucinations. During this season also Mrs Twelfth was placed under a sheriff's warrant; but, as the circumstance was concealed from her, it had no therapeutic significance. The step had been postponed at my urgent request because the patient had frequently threatened extreme homicidal violence so soon as she found herself in the irresponsible position of a lunatic.

Intelligence.—During this season the patient relapsed into a condition of partial dementia. All her acuteness vanished, and her lively wit. Her violent outbursts, which were frequent, were unpremeditated. She had no explanation of them. It is of great importance also to note that her memory for this period was very bad. She remembers none of its incidents clearly. For the first time also hallucinations developed. She heard imagined sounds—screams, voices, instructions—daily. She saw great beasts and people in the walls and ceilings. She perceived odours which had no existence outside of her own mind, felt all manner of curious things in her skin and internally, and believed that she was poisoned. The confusion of her mind was very great, she was incapable of consecutive attention, she had no understanding of what it was all about, no plans, no purposes, no ambitions.

Emotions.—Fear greatly predominated at this season. She lived in an almost constant dread which was begotten of her hallucinations. Her grief was quite confused, she felt but little sorrow which could be explained by any real fact in her circumstances. Sometimes she had a longing to be gone, but quite as often she was afraid of the risks of any change. She was in a condition of bewildered melancholia.

Affections.—Mrs Twelfth's favourite relative was abroad, and the patient felt lonely and deserted occasionally, when she was free to turn her attention to such facts. She developed more sociable habits, spent more of her time amongst the other patients, and caressed a few of them promiscu-

ously. She clung with intense devotion to her nurse, whom, by the way, she did not lavishly caress. She developed no new attachments.

Vices.—Mrs Twelfth's vices now sank out of sight. Very rarely she asked for brandy. She still persisted in blaming one person for all that went wrong, but active hate subsided.

Homicide.—Only occasionally, when she was interfered with, did the patient try to injure anyone. She never lay in wait now to do hurt.

Suicide.—Suicidal purpose disappeared also. Suicidal impulse was occasional. Once she put her hand in the fire—showing a deeper interference with normal habit—but withdrew it quickly. She very rarely tried to swallow harmful things; rarely refused all food; she did not ask for poison. As with her violence and her destructiveness, the impulse to suicide was either in a moment of unusual liveliness—when she was nearer her sane self—or, as was more common, when she acted under the dictation of some terrifying hallucination.

Physique.—The patient's health at this time gave much cause for anxiety. She was emaciated and very anæmic; her pulse was shabby; her muscular power was feeble; she had almost no appetite. She could not read; the words were presented to her mind in wrong order; she would read half of one line and a part of another; and similarly her co-ordination for such movements as are required in fine needlework was greatly impaired. Her handwriting and her spelling deteriorated. Sometimes she mumbled in her speech. Her muscles were frequently, but not always, tremulous. There was no rise of temperature; no pulmonary complication; no great abdominal pain or sickness, though constipation and menstrual disorders persisted.

Spring, 1899—

In the beginning of this season the state of affairs was as before, except that the patient was more melancholic, more confused and stupid, subject to innumerable hallucinations, and frequently in a condition of apparent stuperose dementia. Towards the end of this spring Mrs Twelfth revived and became very sociable and somewhat more cheerful. But she was still very confused. The only thing that was fixed and constant in her mind, and to which she clung fast, was her notion of her beloved nurse.

Summer, 1899—

In the beginning of this summer the patient emerged considerably from her confusion and her hallucinations. Two facts were conspicuous—an almost constant state of acute apprehension of evil, and a very exaggerated and apparently perverted expression of fondness for her nurse. She was improving in bodily health. The "green mixture" was discontinued.

About the end of June (1899), the patient went down once more to the coast. While there she passed through a brief, obstreporous stage, resembling her conscious mania of 1897-98. Then she took a turn for the better and rapidly recovered.

On her return to Mavisbank she was "put on parôle" and allowed to go freely all over the estate. On one occasion she went off to town, did nothing amiss, saw her favourite relative, and came back cheerfully with her nurse.

She was very apprehensive still. She anticipated all manner of harm, especially from the other patients, almost as if she expected them to take revenge upon her for her previous disturbance of their peace. So she spent most of her time in her own room, working quietly, and expecting a long and perhaps permanent holiday.

Her affection for her nurse was now perversely intense. She often wept and mourned over her favourite's health, was sure she would die, could hardly suffer her a moment out of her sight. Yet, when the nurse was with her, she often blamed and scolded her favourite, though never in the obscene and impious slang which she formerly used. At night the nurse often awoke to find Mrs Twelfth bending over her to make sure that she was alive. The patient was also acutely jealous of any time and care which the nurse might have to devote to anyone else. The attitude of the nurse appeared to be invariably that of a nurse—kind, but superior in a military sense. Mrs Twelfth has never tried to corrupt her or to demoralise her in any way.

Then the patient and her nurse were sent away to do as they pleased. The accounts of Mrs Twelfth's progress are wholly satisfactory. She is active, vigorous, and strong. She is quite sensible and acute; she has no hallucinations and no delusional ideas; but she remembers almost nothing that has happened for nearly a year before her return from the coast. She does not want to drink, and has made up

her mind to avoid it. As for her other vicious appetite, her own account is that she is "tired of all that and done with it." It is interesting to observe that one of the last things she said to me was, that there would be no peace or comfort at Mavisbank until I had got rid of ——— (her pet aversion). But she was kindlier towards that person, and considerate of her feelings.

PART III.

A CLINICAL STUDY OF INSANITY.

A CLINICAL STUDY OF INSANITY FROM THE RECORDS OF FIFTEEN CASES, WITH VARIOUS DIGRESSIONS UPON IMPORTANT QUESTIONS IN ETIOLOGY, PATHOLOGY, AND TREATMENT; AND WITH SPECIAL REFERENCE TO THE SPIRITUAL FACTOR IN MENTAL DISEASE.

A CLINICAL STUDY OF INSANITY.

The Mental Physician's Point of View.

It is not easy to say in what spirit the practitioner or the student should approach a case of insanity. There are facts which put that disease in a category of its own, which make it impossible that you should follow the same method in dealing with it as, for instance, when you are engaged with a gastric catarrh or with a cystitis; for the prime function of the brain is spiritual, which that of the stomach and bladder are not. Yet the fashion is to adopt the usual bedside attitude, to have the usual point of view, when one is treating an insane case. Here is a brain, we say, which is disordered—a brain which is suffering from tonic depression, whose blood supply, perhaps, is not of good quality, or which is exhausted from over-exertion, or because of an inherited or constitutional weakness. And accordingly we set about to cure the disorder by properly apportioned muscular rest and exercise, by fresh air, by extra diet, and by tonics. All that is absolutely necessary; but perhaps it is not enough. Perhaps there is a fallacy to which we are prone when we say that insanity is a disorder of brain cells and fibres, and when we say that there is no such thing as *mental* disease. For it has come to be the fashion to have regard almost entirely to the physical facts in mental disease. We have forgotten that, although it is true that a man's brain cells have become pigmented, it is an equally true statement of his insanity to say that his spirit is worn and all his feeling discoloured.

The fallacy is that we think of a brain apart from the self. We speak of the person to whom this brain belonged, or who had this brain, or who used this brain, very much as we might speak of his umbrella. But there is a relation between the self and the brain which is essential, although we cannot understand its nature, and to think of the brain

and the self apart from each other is as if we spoke of a right and left half of a man. And so there is a sense in which insanity *is* mental disease. Objectively considered, it is not; subjectively, it is. When my memory plays me false, when I cannot find the words I want, when wrong words come instead, when I cannot relate two ideas, when I cannot understand an involved sentence, my doctor knows that my brain is fatigued: I know otherwise; I know that I myself am stupid. And what is true of my functional disability is true of all insanity, for all insanity is a functional disability. We shall not quite understand what it means, and, what is more important, we shall not treat it quite successfully until we get at the personal point of view. In my opinion, we miss a great deal of therapeutics by not having regard to the insane patient as a person. It is quite true that his trouble is an affair of his brain; but we forget that brain is more directly and more easily modified by the man's self than by most other things. By all means let us exhaust the full resources of the physical method, but at the same time let us avail ourselves of the spiritual. After all, the spiritual relation of brain cells is as big a thing and as important as their chemistry. Iron and strychnine, phosphorus and Indian hemp, are very potent remedies; but so also are fear, doubt, hope, confidence, interest, enthusiasm. Moral causes overturn many a mind and brain, and moral causes may restore them.

If the student then wishes to understand insanity, he must devote himself deeply to the cases which are available for him. He must sit down to one case and master it, both from the physical and from the spiritual point of view. He must examine the patient's mind very fully in the light of its previous history, and with a keen scrutiny of the present facts. Only when he understands his patient, when he sees the faults and failings of the mind minutely, can he guess where and what the critical lesion is. He must not be content with a superficial observation—an observation of the outside of his patient; he must somehow acquaint himself with the states of consciousness. In other words, the practitioner would gain something from a psychological study of insanity—if he will, for instance, but think of himself as the patient, and understand what could possibly be in his mind when he is doing or saying this or that mad thing, and especially if he could think out a history of the conscious-

ness on its way to arrive at delusion, or mania, or other insanity.

But he must achieve this art in another sphere also. He must acquaint himself with the inward thoughts and feelings of sane folks. All through his practise, whether his patients be nervous or not, he will find it repay him to make earnest enquiry into their minds—to discover what they are thinking and feeling about themselves and their disease, about their husband or wife, about their prospect, and by what process of reasoning or by what series of emotions they have arrived at their conclusions. Practising such an art, the physician will appeal to factors in health and in disease which are none the less important because they are usually neglected. And, if he remembers one or two insane minds with which, at one time or another, he has been *en rapport*, he will be a god-send to many distressed souls. I do not see how the practitioner can ever hope to prevent insanity in his flock until he understands how insane minds work, and knows what way madness lies, and diverts his patients from it; and one is inclined to believe of nearly every case of insanity (which is not congenital or paralytic) that it might have been prevented had someone been at hand who knew how to observe mental facts, and how to minister to disturbed thinking and feeling.

Anyhow, if practitioners do not find it of value in their own practise, it would certainly be a great gain for specialists if they would add to the good services which they already do us by some such enquiry and record. It would be very useful if, when he has learned all that there is to know about the family history, about the previous history of the patient (as an outsider might know it), about the physical facts of the case, and about the circumstances attending the onset—if after all that he would discover the history of the delusion or the feeling which has at last overpowered his patient. In some of these records which follow, there are hints of inner consciousness in insanity, which, I regret, are not fuller and more convincing. But, such as they are, I think that they may be of use to practitioners, in suggesting to them types of insane mental processes as contrasted with merely insane behaviour; and any further contribution to our knowledge of the early stages of such disturbances of thought and of feeling would be very welcome. The case which has just been recorded—that of Mrs Twelfth—illustrates my point.

It need not be pretended that we fully understand that case; but it must be perfectly obvious that the relation of the patient to her neighbours, her affection for some, her hate for others, are of the first importance in explaining the nature of her ailment, and that, failing to appreciate that, treatment would almost certainly have been unsuccessful.

A CLINICAL STUDY OF INSANITY.

Mr ONE, Age on Admission, 26; Duration, 6 Weeks; Discharged Recovered after 15 Months.

A case of adolescent mania, complicated by morphinism and masturbation. A young man of an original and talented mind, overstrained by work and by indulgence in morphia. Great trophic impairment. Satisfactory progress and recovery

The principle of primary and secondary mania (positive and negative lesions of Hughlings Jackson), its difficulties and its importance in diagnosis and in therapeutics.

Mr One came of an interesting family. His parents were plain and humble folks, but of the kind who expect and aim at great things for their children. The children were not unworthy of the parental ambition, but unfortunately not of the physique to do it full justice. The mother died early, the father was cancerous. The patient's sister took to useful work and became accomplished and notably good at it. The patient, however, was the genius of the family. Nor was his genius only appreciated by his own people; his acquaintances and teachers recognised his exceptional gifts. Nothing that he did was done just as other people did it; he added to everything a touch and character of his own; accepted nothing on the authority of others; was not content to take things as he found them. With all his cleverness, however, he lacked some of the steadiness and persistence which characterise less gifted and more successful men. He was impressionable, fanciful, an idealist, and very ambitious, but he preferred the short cuts to fame.

About a year before he came to us, Mr One accepted a post which not only yielded a fair income but promised to lead to something much better and, willy nilly, he found himself occupied from morning to night with affairs which could not be postponed. For the first time in his life he

was fully and constantly occupied all day, and often in the evenings. To that already sufficient task he added the self-imposed burden of educating himself for higher work, and began to go off his sleep and to be generally excitable. Many years previously, having been initiated into the insidious charms of morphia by a too careless friend, he had indulged in the vice for a month or two, but had relinquished the habit at the instigation of better advisers. Now that he had much to do and wished to do much more, he resorted again to the drug, and indulged more freely than formerly. At this stage he did not masturbate, so far as one can learn, or at least not to any serious extent. But that form of excitement also soon began to take a stronger hold upon him. He was still an adolescent in physique.

As is often the case in such people, Mr One's illness began in religious and amorous imaginings only a little exaggerated. He fancied himself in love with a girl who found his attentions rather perplexing; he attached a false importance to all that he said to her, giving her words, on after thought, a significance which they did not obviously bear; and in the light of his rather extravagant fancy, he interpreted her innocent politeness as indicating serious and irrevocable expressions of deep feeling. It is not easy for a girl, not accustomed to incipient mania, to withstand the attentions of a very ardent lover who takes everything *au grand serieux*, and she really did commit herself further than she now cares to remember. A few weeks later, when the patient became more depressed, and turned his attentions to religion, she was not a little relieved to hear from him that "all must now be at an end between them," that he had promised more than he could implement, and that he hoped he had not ruined her life and broken her heart. He advised her to try and forget the past and to exclude him from the pure atmosphere of her thoughts—which she did.

Meanwhile the patient was devoting his thought intensely to religious subjects, with intervals of morphia intoxication and masturbation. His health now rapidly failed, especially in the trophic functions. He was sleepless, lost much weight, became very pale, and developed subcutaneous abscesses.

Presently his fancifulness grew into delusions and hallucinations. He thought he had ruined the girl—which he had

not—and spoke as if he had seduced her, of which there was no evidence. Lying awake at night, even with his sister beside him, he began to imagine that strange things were in the room and, in his restlessness, arose often and took his sister out for midnight walks. She did not know the risks she was running, for, as is usual with relatives, she failed to realise the insanity of his mental state; but fortunately nothing serious happened. She was the one person apparently to whom he told everything, and who had the power over him to control his growing excitement. The climax was reached one night when he came to the conclusion that he had lost all his chances, that people were in the bedroom to taunt him and to punish him, and he made a rush for the open window, where his sister had difficulty in preventing him from a serious fall.

This onset illustrates very well a vexed question as to the invasion of mania. Taking mania to be a secondary symptom—an excessive activity on the expressive side of the brain and sometimes in the sensational centres, we rightly assume defect of the higher and controlling functions. Before you dance, and shout, and jump over windows, your centres, which represent sane self-control, must be to some extent impaired. Such a paresis of inhibition means failure of function from fatigue, and fatigue means pain which, in the mental areas, is known to the sufferer as depression. It is therefore argued that, before the stage of excessive activity, there must always be a stage of depression, however short. This view, however, is probably not absolutely correct, for this reason, that, so far as we know, these positive symptoms of insanity, as Hughings Jackson calls them, are not always secondary to a negative lesion. In a fast growing organism, for example, the mechanism which determines the food appetite, may hypertrophy, if the phrase may pass, so as to occasion an appetite disproportionate to the needs of the organism. Such a boulimia—an excess in a lower function—is to be regarded as an unrelated development; but you cannot call it a secondary symptom unless you care to take the view that it is due to a want of development in the centres which should govern the sensations of hunger and of emptiness. But that view is not sound, because the centres for control are developed adequately for all normal purposes, although not sufficiently for this hypertrophied organ of appetite. Similarly—and here is no imaginary abnormality—the sexual centres and their correlated cortical mechanisms may pass the bounds of normal development, they may be precocious in coming to maturity, and it is not sound to attribute to a failure in control the excesses of feeling which are really due to a hypertrophy of the centres for that feeling. That such excessive and unrelated developments do occur is beyond question. Indeed this goes to the root of all development. It has a most important bearing on all special individual developments, and on the evolution of special variations in a race. When we speak of an organism being favoured in the struggle for existence because it

developed a favourable function better than its neighbours, we really mean that it developed it sooner than its neighbours. If the function —say the reproductive— is matured a week sooner in one pair of animals than in their neighbours, that family scores over the others. In such normal precocity, however, we assume that the other functions of the organism are ready for this particular function, else the variation is premature and hurtful. That, then, is what probably happens in such a case as we are now considering. Love, religion, ambition, eagerness for work, advanced ahead of the general line of development in Mr One's mind, and their excesses became serious without any palpable depression which could be assigned to a failure of the centres of control.

Mr One was sent in a hurry to a county asylum, and in a short time was transferred to Mavisbank. On admission he looked very ill, and was very ill. He was very poorly nourished and very pale, his pulse was soft, his muscles flabby. His abscesses, however, had nearly healed. He was sleepless by night, restless, fanciful, and irritable by day. He believed himself to be Jesus Christ, and was disappointed not to be so recognised. He still had delusional ideas about his girl, and tried to make food for further embarrassing relations with nurses and lady patients. Soon he became violently rebellious, and severe struggles were only with difficulty prevented. His insane activities were enormous. After a long walk, he would race any one a quarter of a mile, and ran very fast; he talked by the hour; made love *ad nauseam*.

There was nothing remarkable in the progress of his case. He was treated throughout on the open-air plan, but great care was taken not to exhaust him. He had extra diet, and Cascara Sagrada. After a week, Iron was prescribed in the form of Steel Drops, and for sleeplessness a drachm and a half of Paraldehyde at night. From the first he either improved or stayed still; there was never any serious relapse. He did not gain colour or weight rapidly, however, nor did his sleep greatly improve. I attribute this slow increase in the bodily powers to the lingering effects of morphia. At the end of three months his general strength was much greater and his excitement was much less violent in its tendency, but he still talked much nonsense and slept very badly. Then Sulphonal in thirty grain doses at night was substituted for the Paraldehyde, and a strange combination of three oils was given—castor oil, olive oil, and cod-liver oil. His stomach stood it well, and he gained weight under it. His sleep was improving under the sulphonal, and he stopped

masturbating; consequently his self-control and his coherence improved. But he was still nervous and easily upset. He appeared much ashamed.

This last element—the shame which was in the lad's mind—went a long way, in my opinion, to retard his recovery. It was one of these things which you are very apt to miss—we all missed it—unless you achieve a very close personal relation with your patient. And it was one of those things which do not readily subside in a patient's mind unless it is met by a direct, personal appeal. You may tonic, and feed, and exercise a patient to any extent, and still a feeling or an idea such as this shame of Mr One's will annoy him and depress him, will damp his enjoyment, will tincture all pleasant intercourse with his neighbours, and may even prey upon his mind so as to put him past food and past sleep. It can only be successfully dealt with if you get inside your patient's mind and treat it by moral means.

Mr One was at this stage deeply impressed with the fact that he had played the fool. He had taken morphia, he had masturbated, but, as he supposed, no one knew the facts of these habits. But, before he came to us, he had been in love with this girl in the country, and from Mavisbank he wrote to her several letters of a most compromising kind. Moreover, he had inconsequently changed, and had bestowed his affections upon one of our nurses, whom he had pestered with love-sick attentions. Lastly, he had opened his mind freely upon things in general, and, in particular, had been uncompromising and far from complimentary in his criticism of the superior officials in Mavisbank; and he had committed himself to writing on the subject. Now that he was well, when he took a more level-headed view of things, he was constantly haunted by the recollection that he had offended against the girl in the country, against our nurse, and against our management. He could not be at rest until he had unburdened his mind.

It is well, I think, to compare always the state of mind of the insane with analogous and sane process of which they are the exaggeration and the perversion. Mr One, a sensitive, reticent, young man, constantly felt that he owed an apology. Any one may feel that, and may rid himself of the unpleasant feeling, either by the discovery that the person supposed to be injured does not feel himself so, or by the somewhat difficult and embarrassing process of

apologising. But Mr One was just in that stage of convalescence when he was conscious of what he regarded as shortcomings, but was not yet clear-headed enough to see how to repair them, nor strong-willed enough to express himself satisfactorily. It was only when his father explained to us what the patient felt, and when we helped him out of his difficulty by the idea that no one minded what he had said or done during his "delirium," that he began to keep his head up, and to attend to the future rather than to the past.

After that, general treatment was continued with good results, and soon the patient was working well, and had a great appetite, he took a normal interest in everything, and a querulousness, which had been considerable, disappeared. Presently he was well enough to be trusted with freedom within the grounds, although we still insisted upon his forenoon's work. Then he was able to go outside the grounds alone, and his recovery was complete.

The remarks which I have interpolated in this case as to the possible importance of the distinction between excitement which is primary and that which is secondary, may seem to have a merely academic or scientific interest ; but I wish to point the practical moral before we leave this case. In a case, let us say, of senile mania in a man who has had good self-control all his life, and who has not been a man of excesses, the excitement may certainly be regarded as secondary. In such a case the primary lesion is one which impairs self-control and judgment, and so lets loose the lower centres, whose excessive activity may then be regarded as due to the abeyance of inhibition. In that case, what is wanted is a bracing, tonic, or resting treatment. Such a case is probably best treated in bed, and one should administer food at short intervals, stimulants in small doses sometimes, and nerve tonics. His strength should be spared in all directions, even if one must have recourse to mechanical restraint to save his energy. His disease is due to a lesion of fatigue. Sedatives should be used as sparingly as possible, and all his bodily organs should be carefully treated so as to feed his nervous system as well as possible.

The case of an adolescent is quite different as a rule. His lesion is not one of fatigue only, but a lesion of hypertrophy also—a precocious development of certain mechanisms without a due preponderance of correlated cerebral organs which should exercise a proper control. In such cases a much more depressing mode of treatment may be safely tried. Sedatives may be administered more freely, and, in particular, hard bodily exercise may be ordered, provided that one takes care to nourish the system well. You would not put such a case to rest in bed all day in a darkened room as you might put a senile case who is best not to have any strong mental stimulus. You would send him out, under careful control, to see and hear everything that was going on, and to be occupied with the most interesting and sane activities which you could devise. Your aim in this case is not to spare the whole brain, but to bring its wrong and excessive

development into subjection to sane activities. You try to divert the wrong energy into sane channels, and to bring up the mechanisms of the higher mental powers to the precocious level of the lower organs which had outpaced them. In short, the one kind of excitement calls for rest, the other for direction.

A great difficulty, however, often arises in determining whether the mania is primary or secondary. Many cases, especially in about the prime of life, are difficult of diagnosis in this particular. Only a most searching inquiry into the history of the patient's previous character, his mode of life, and the onset of his illness, will inform you whether to call his mania primary or not. Many of these cases are fatigue cases. Influenza, typhoid, other illness, accident, or alcohol, may induce premature exhaustion of the higher mechanisms, and the restful mode of treatment may be called for. On the other hand, one often finds primary excesses which one can attribute to a commencing climacteric. An organ about to decay may excite a disturbance similar to what it excites at its commencement. Before the final stage, the stage of decadence and decrepitude, an exacerbation of vitality may disturb and shock the system. Excessive growth of hair, increase in the male mammæ, seminal excess, menstrual excess, and, perhaps, an excess of ovulation, are signs, in the lower functions, of senile hypertrophies; and you may find analogous excesses in nervous organs, so that the patient is incited to undue activities in various directions which are not normally controlled. In these middle life cases, however, there is generally much fatigue of higher centres along with the excesses in the lower, and treatment must be modified to cope with both.

MR TWO, AGE, 21; DURATION, 18 MONTHS; RECOVERED 15 MONTHS AFTER ADMISSION.

A case of adolescent stupor, with exhaustion, following overwork and confinement indoors, mistakenly regarded as ill-tempered taciturnity. A patricidal explosion. Slow progress and ultimate recovery.

Stupor, unless accompanied by marked impulses, is easily missed if the illness does not become very deep.

Mr Two was a young man who had a father. The father was keen on business, keen on the church, keen on respectability, and keen on his family; but he did not quite understand his son. The son was keen on amusement, keen on companions, keen on a good character, and keen on his parents; but he did not quite appreciate his father. The father gave the son a large share in his business in the sense that he gave him plenty work to do; but he gave him only

a small share of the profits. Mr Two, junior, would have liked rather more holiday and rather more money wherewith to amuse himself and his companions. Mr Two, senior, thought it best to keep him close on the grinding stone. The young man was a good lad with no vices to speak of, but he had not a gift of frank speech, and it was his way to be resentful in silence. So he submitted to his father's desires for him, and quietly endured the long hours and the confinement and the want of relaxation. The conditions were really very severe; all hours were business hours except Sunday. The reticence which had grown up between father and son masked the real state of affairs. The son was nursing his resentment more and more bitterly. The father was too preoccupied to notice his son's failing health.

The boy went off his sleep and spent many nights abroad, thoughtful and angry. He lost appetite and spirit and energy. He became more and more silent, less sociable, less cheerful, less polite. Eventually he would go about like a machine all day, hardly opening his mouth, doing his work mechanically, without interest and without intelligence; and his taciturnity and stupidity annoyed his father. To the casual observer it was a simple case of a rather hard father and a dour and resentful son. In reality it was much more. It was an onset of stupor due to the combined strains of adolescence and of overwork on a constitution congenitally predisposed to nervous illness. Stupor is very apt to be overlooked, it often grows so gradually, and because it is in the nature of stupor not to express itself obviously. Stupor is essentially a paresis of the mechanisms of initiative and of free expression. It is an impairment of the will to speak freely, to move actively; it is a drowsiness in the purposive functions of the mind. And because it is an irresponsive and an inexpressive phase of insanity it is often overlooked, and the misunderstood patient is called stupid, or sleepy, or morose.

Meanwhile, the lad's judgment was being seriously impaired, his imagination was playing fast and loose with his common sense, and his will was being tried by many suggestions of wrong doing. His general feeling was necessarily one of depression, and, as I shall have to say often, his sense of injustice bred more and more anger and irritation the less it found opportunity of full expression. He found it impossible to think the matter out calmly and without temper. His

mind ran in a narrow lane, in which he felt himself hampered, and hurt, and spoiled, and always at the end of the lane was his father, who seemed to him the cause of all the spoiling of his life. On other subjects, however, he found his imagination run far too freely; but he did not realise that it was carrying him away; he only delighted in its fancies. On his late rambles he fell in with witches and fairies; he conversed with them, hearing them speak to him though he could not see them, and their companionship was a pleasant relief after the dreariness of his days with his father. This phase is not so unusual in depressed states as one is apt to suppose. It means, I think, that a part of the mind which had not been greatly exercised before—the imaginative functions—was beginning to have its innings, now that the attention was shut out from more ordinary paths. In Mr Two's case this same part of his mind found pleasure in thoughts of a religious nature and, of course, in love. But all of that, like his resentful feelings, he kept entirely to himself.

It is characteristic of many forms of stupor to explode suddenly at times, and Mr Two went off in rather an alarming fashion. He was carving a roast one day when his father came into the room. There was no direct provocation, only an ungovernable impulse, and the boy rushed at his father to stab him. Fortunately his father never felt quite at ease in his son's company and was not asleep on this occasion. Fortunately also he was much bigger and stronger than the boy, and overpowered him without receiving any hurt. On the instant the lad came to himself, and was full of grief and of fear at what he had done. From that moment also the father realised that his son was gravely ill. There were no long explanations between them. The encounter seemed to have cleared the air all round. With an admirable confidence, the lad was treated not as a dangerous lunatic but as an invalid who required constant nursing and companionship, and a few days later, himself assenting, he came to Mavisbank to recruit.

In this case also, the onset was more interesting than the subsequent progress of the case. As a matter of fact, that is usually so. Insanities which are to be found in asylums are generally but the late evidences of the primary and most interesting affection. Mr Two fully recovered, gradually but steadily, on quite unpretentious treatment. His was an

adolescent case, in which there were but few symptoms of exuberant developments in the mental areas. The lesion was chiefly one of fatigue, and the abeyance of function, which we call stupor, was much more prominent than the positive symptoms, such as the hallucinational communion with spirits of the air. He did keep up that fiction after he came to Mavisbank, but it was never a very important feature. Accordingly, the routine rest of institution life, the freedom from worries, the fact that he did not have to decide what he would do, but only could do as we prescribed, the regular and gentle bodily exercise, the full diet—these were the factors which induced recovery or made it possible.

For a long time no personal relation with this boy was possible. Nothing so shuts off a patient's mind as stupor. It is, as I have said, an impairment of the expressional functions, and it is one which goes right down to the end of the motor realm. The patient cannot effectively will, in some sense—that is, he may choose, for all we know, but he cannot effect his choice. He probably has something to say every time he sees you, but his idea cannot find its way out. The passage is blocked from the ideational centres outwards. Nor can he by writing or by gesture convey his mind to you. The same is true, but not to so deep an extent, in melancholia and in mania. But in these latter states, in what were once called lucid intervals, though they be only seconds, you may catch, in the reflex expression of the patient's countenance, some hint of his real self. Not so in stupor. The disease, I think, is a descending lesion of an active kind—analogous to what I have suggested as an account of alcoholism. In all the functions you can observe the effects of the trophic impairment, which I take to be due to the abeyance of descending tonic impulses. Visceral sluggishness characterises stupor ; even the cardiac function is depressed, and respiration is shallow. The vasomotor function is very obviously impaired, and the slowness of the lymphatic function leads to a less or greater degree of œdema. In the voluntary muscles the tonic impairment is well marked. The whole muscular system is flabby, the hands and fingers still and soft and cold, the face smooth and vacant. (I speak of simple stupor.) And so you may sit beside a man in stupor by the hour and never see or hear anything that you can call an expression of himself. The eyes only may express something, for often, in very deep stupor, they retain activity, and will follow your movements and look into your face with something like intelligence. Later, when the disease is decreasing, the voice and lips and other voluntary muscles begin to struggle to express the patient's mind, and few states of insanity are so distressing as the futile attempts at reasonable speech of a convalescent stuporose patient. It therefore always seems to me that an attendant or nurse who achieves some understanding with a patient in deep stupor, and who maintains a personal relation throughout the course of the disease, has acquired a very expert art. All that anyone can do with a case of stupor is just to exercise patience and to help the patient, quietly, to overcome the obstruction in his voluntary muscles. Doubtless the patient regards all such attempts, when they

are well done, as a co-operation with himself. In Mr Two's case that was certainly so. It gave him pleasure to find that he was with people who seemed to understand his trouble, who could interpret his attempts to express himself, and who did not mind his mistakes.

At first Mr Two had very mild manual work, for which later more severe exercise was substituted. Eventually we gave him charge of a pony, and he got great good from the interest and occupation which that afforded, and from the pleasure of driving out other patients, until a foolish voluntary inmate taunted him with the reproach that he was the Mavisbank groom, whereupon he resigned the therapeutic office. Medicinally we cannot be said to have achieved much success with the case. He was very pale when he first came to us, and we put him on Blaud's pills and gave him strychnine. These did not materially improve his complexion, and we had no better success with steel drops nor with the favourite aloes and iron and nux vomica. Similarly we made very little impression on his weight in spite of heavy feeding. He was a throat subject, suffered twice from tonsillitis and pharyngitis, and once from a short attack of bronchitis during his fifteen months with us. Cod liver oil did not suit his digestion, either pure or in emulsion. He was of a thin habit. At the last, when he did gain colour, he was having no medicine except cascara. He was very constipated. Altogether, he only gained ten pounds in weight, but that he maintained well after he once acquired it. He was a subject who would easily incur phthisis, but there were no physical signs of its having begun during the time he was under observation at Mavisbank.

It only remains to be said that he and his father were on very good terms before he returned home in December, 1896. But I strongly advised that the lad should be sent away from home. He was offered a good post in a friend's business, which he accepted, and in which he has done well.

MR THREE, AGE, 23; DURATION ON ADMISSION, SEVERAL YEARS; RECOVERED FIVE YEARS AFTER ADMISSION.

A case of Paranoia, with maniacal and with stuperose exacerbations, culminating in a condition of mild dementia, characterised by great defect of control and by various impulses to wrong acts.

Kleptomania, passionate language and acts, destruction of property, and epileptic temper, in this case amenable to moral treatment.

The development of incentive to right conduct in the feeble-minded.

Mr Three's case was difficult, in respect that he did not answer to any one form of insanity in particular. He was one of those cases which might be described under two or three different names at different stages of the disease. To begin with, he was certainly paranoiac, that is, he was of a form of insanity in which there was no great emotional element, no pronounced feeling either of elation or of depression, no concrete delusions of a serious character, but which stamped him as a mild lunatic because of his curious temper, eccentric habits, and extravagant convictions. He could not stick to work, could not agree with his friends, had the general impression that he was a genius whose career was hampered by the apathy or interference of jealous neighbours, dressed peculiarly, studied outlandish subjects, and so was universally regarded as "queer."

Later, he passed through a stage of acute mania, in which there was the usual course of elation, restlessness, extravagance, excitement, and violence. Again, his insanity took the form of stupor, in which he reacted scarcely at all to his surroundings, did nothing and said nothing; at which stage his only initiative was of an impulsive and violent kind. At another time he exhibited almost pure delusions, which were of an exalted nature and mostly religious, and which were mixed, as is commonly the case, with delusions of suspicion and of resentment against supposed rivals to greatness.

When I first knew him, the paranoiac element remained, with a little of the impulsiveness of his stuperose stage, but there was nothing like stupor in the case. There was nothing that we know of wrong with his bodily health. He ate very heartily, and slept very soundly, took long walks or bicycle rides, and was a keen man of sport. He was an expert curler, a good fisher, a good cricketer as asylum cricket goes, played tennis and bowls well, was about the best croquet player in the parish, was much sought after for his football, and was as handy a man with a toboggan as I have ever known.

His mental state, which I think we are almost justified in calling paranoia, was one in which the chief features were loss of the sense of what is proper and a loss of self-control. My first impression of him was that he was slightly demented, and that the dementia took the convenient form of a disability of the moral sense. But it would be a strange thing if a man should become demented in so limited a range of mental functions, and my belief now is that his acute stage had been passed, and that he had sunk back to the state of paranoia in which he was at first. But " Casual Dementia " would be a good name for it.

His insanity was one of long duration. He had been in and out of the asylum several times, because home life had always proved hopelessly difficult. He was a very silly youth, hugely over-estimating his gifts, especially in the musical and literary line. He fell in love quite frequently, and pestered the lady of his affections with poetry. He dressed extravagantly — huge collars, brilliant ties, loud checks, knickerbockers, yellow gloves—and he was slovenly and dowdy withal. He had what we may call an epileptoid temper. With very little provocation he would break forth into the most violent language, his words would urge out of his mouth with bad grammar and very little truth, he stammered and spluttered and ground his teeth ; then, if he was not mollified with the offer of a fill of tobacco or some other form of sugar plum, he would seize upon some property, which was carefully not his own, and destroy it.

Mr Three's symptoms can be best considered according to Hughling Jackson's distinction between positive and negative signs. This is a case in which, in my opinion, the positive symptoms were all secondary to a series of defects of higher functions. These latter defects—the negative symptoms in the case—might be truly described as an impairment or as an absence of inhibition. But that term is far too wide and general to be useful. When we try to analyse the case and to say in what respects inhibition was obviously defective, we find it rather difficult to describe the facts except under such a name as casual dementia. We may say generally that the negative symptoms—the wants—consisted in the absence of the corrective functions of the mind. His exaggerated self-importance failed of correction because he lacked the faculty of measuring things ; he had almost no critical gift. Again, he failed signally to achieve a

sense of proportion; almost nothing that you could propose to him struck him as extravagant or improbable; he had very little notion of what was excess; he was of versatile activities, but he had no turn for balance. Lastly, he greatly lacked a sense of propriety; he failed to comprehend what it is proper and creditable for a man to do and to say; he simply could not see it. Failing these three sources of inhibition—discernment, proportion, and propriety—it was his nature to be untruthful and unjust and perverse. On the positive side, a great many sillinesses and extravagances and absurdities have to be recorded. But worse than these was his passionate and explosive form of temper and a whole host of petty offences. The explosive temper might by some be regarded as a form of masked epilepsy, but, in my opinion, it was not so. It was usually provoked though by insufficient causes, it was apposite in its expression, there was no deep loss of consciousness for other things at the moment of explosion, it would cease promptly if the proper diversion were supplied, and it was fully remembered—all of which facts are against the idea that it was really an epileptic phenomenon. But it was like the temper one often finds in an epileptic. The minor offences were certainly secondary to the defects of inhibition which have been pointed out. Mr Three was untruthful, dishonest, cruel, destructive, impunctual, disorderly, improper, because he felt no incentives to uprightness and propriety. I call him a casual dement, because he suffered from lack of discipline. He did not realise, when I first knew him, the need for good manners. He was the sort of patient of whom people said, "He could behave himself if he liked." His trouble was that he could not "like."

These various defects and their results in conduct may be worth some illustration. Of his silliness, his artistic efforts and his literary are the best examples. His verses were widely read in our community, for he saw to it that they were duly circulated. He fell in love in a mild way very often, and that was always an excuse for poetry. The following is his best effort, and it has been very generally liked :—

ODE AND SONNET TO BEAUTY.

Ah, Beauty with the luscious eyes,
At whose tints sweet thoughts arise,
Like fondled peace in Paradise.

Ah, Beauty with the rosy cheek,
Still placid smile and trait so meek,
Soft blushings which words could not speak.

Ah, Beauty with the locks so fair,
Rich tresses golden clasped with care,
Besprinkled o'er with garlands rare.

This beauty drinks as Love enshrined
The golden cup of human kind.
She moves a heart, enwraps an eye,
Entrances soft a lover's sigh.
She speaks of bravery's honoured ways,
Of valorous kind in blandished praise.
Intent to cull a graced flower,
All tend her hall's enchanted bower ;
All flock to hear her music's tones
Which counsels love and truth enjoins.
Fairer than lark's faint piping horn
Her countenance radiates as the morn.
The gentlest sweet caresses run
To Beauty's heart and Beauty's throne.

As has been said, Mr Three played the piano with great acceptance. His playing showed the same mastery of gymnastics and the same utter lack of music with which one is familiar in the pianist who accompanies a panorama. But both the music and the poetry were accepted gratefully by the ladies of Mr Three's acquaintance. Similarly he was spoiled by having his literary work praised. Politicians, in particular, seem to have absolutely no scruples in this connection, unless we are uncharitable enough to assume that they have no discrimination. There was one essay by Mr Three which could only be described as drivel. It was on some labour question, and, after it had been read to the local debating club, it was forwarded to the House of Commons. In a few days Mr Three received an acknowledgment from a Cabinet Minister, thanking him for his "valuable contribution;" which letter, bearing the Minister's autograph, kept Mr Three happily vain for weeks.

In all these matters, and, so far as I know, in everything else, Mr Three was convinced that he could shine with great radiance if only he had a fair chance. The poet laureateship, the premier position in politics, the captaincy of an all England cricket eleven, a partnership in the biggest concern in the city, or anything else, might have been offered him any day without exciting his surprise. If you had asked him to play a duet with Paderewsky in public,

he would have accepted promptly, and would have tried to play anything you chose to set before him without thinking it hopeless and without admitting that he failed. The trouble was that, as happens to many people who cannot understand defeat, he often succeeded most surprisingly, and so confirmed his conceit. A rash spectator once offered that he would give a half sovereign to anyone who could go down the toboggan slide standing on the toboggan—a feat which seemed hopelessly difficult; but Mr Three had the pleasure of spending the money in ties, collars, gloves, and cigars. At curling he brought off shots which no one but a fool would try; he was received in the most select houses of the neighbourhood, into which only a man of weak-minded audacity would venture unasked.

The moral nature of Mr Three was, however, much the most interesting part of his character. It was, as I have said, very defective. It is fair to credit him at the outset with the fact that he was free from the vice of drinking, and, so far as we knew, he did not transgress sexually. He took alcoholic liquor with pleasure, but he did not get drunk; and, though he had full opportunity of gross impropriety, he could be trusted to refrain. The only suspicious fact in this connection is that he visited a lady's room one night by climbing to it from a lower roof—at least he was blamed for the visit. It is quite in keeping with his character, however, to suppose that he went there for romantic, not improper reasons; and, indeed, as the lady was not at home, and he seized the opportunity to remove some souvenirs of her devotions, it might even be argued that the theft of these religious relics was the motive of the visit.

In the way of positive virtues Mr Three had not a great deal to his credit. But he was certainly a most obliging youth, especially if there was any prospect of money or a cigar as the reward of his services. Even apart from the expectation of payment, it must be admitted that he was at the disposal of his friends to a degree which the cynical called weak-minded. The fact was that he would go far out of his way to oblige anyone who was kind to him.

His repertoire of petty vices was large and varied. He seemed to lack what the phrenologists call the sense of time, and could never be relied upon to do even things in which he was interested up to time. He would come down late

for breakfast, and be very much disturbed to find that it was a very poor substitute for a meal with which he had to content himself. His appearance at other meals was equally irregular. At night, when he was in Edinburgh on pass, he would now and again come home at a most belated hour, having been enjoying himself in some friend's room, and having come to the conclusion that he would "just walk home." In his business relations this sort of thing was of course a hopeless defect. He failed to keep time at his post in the morning, and, moreover, when a certain piece of work was allotted to him, it seemed to him a matter of no importance whether he did it now or three weeks hence.

Mr Three was also just honest enough not to steal anything of very great value. But he had a habit of pilfering on a small scale, which was very annoying. If he desired anything, he appropriated it, provided that it seemed to him not of great value to the owner; and he would do so even after the owner had protested. Cigars, pipes, tobacco, books, shoes, hats, and other garments, music, and any amount of eatables and drinkables, which were not his, disappeared under Mr Three's guidance. In the case of the garments, I believe that he really was the victim of a slack habit of borrowing without permission, and without any very definite intention as to the date when he would return the borrowed articles.

The lie defensive was one of Mr Three's most artistic achievements. We did not find that he went out of his way to lie either by way of slander or so as to glorify himself. But he was a master in the art of constructing a tale which would screen him from a fault which we had discovered. His was not the elementary method of finding excuses and palliating circumstances; he was fertile in inventing an account of the facts, which gave them an entirely new complexion, and which made him to appear as rather to be praised than to be blamed.

His carelessness of property was quite characteristic of this class of man. He was the kind of person who would scratch a match on freshly-stained panelling in the drawing-room; he would force any lock which he had not the patience to bother with; he would tear a page out of the first book that came handy when he had not a match wherewith to light his pipe; if he wished to run an errand in rain he would put on the easiest slippers he could find, provided that they

were not his own; he would tear strips off a tablecloth to mend an old tent.

When first we seriously set out to mend this patient's ways, we tried to influence him by the milder methods of reason. In this we signally failed. Try as you might, you never could bring home to him that he was in the wrong, or extract anything like a promise not to do the same thing again. Also, you could not hurt his feelings by anything, however harsh, that you might say, for I have tried it often. His egotism carried him with a strong rebound away from blame or contempt. So we resorted to more material motives to reform his habits.

The first thing to recognise in the case of a paranoiac or of an imbecile whose moral nature is defective, is that there is no use in trying to establish a sense of right and wrong as regards the more refined virtues. Such patients can never have a high ideal of what is just, or true, or fine. You may teach them to repeat words which may seem to imply a highly-developed moral sense, but they are the words of the Sunday school scholar who has his eye on prizes. The best that you can do for all lowly-developed moral beings is to direct their activities into proper channels. In other words, you can guide their conduct into good habits; and there is almost no limit to what a painstaking teacher can do in this direction. The task is essentially the same as that of an intelligent man who starts to teach a dog or a horse a difficult form of work. The same method is necessary in the training of young children. You must aim at good conduct, not at good sentiment. Then it is necessary that we should detach ourselves from the theological mist which surrounds all our notions of responsibility and of punishment, and the legally-minded must also free themselves from ideas which have their origin in the atmosphere of the police court. Theology and law between them have taught us that there is one kind of judgment for the insane and another for the sane, one kind for children, another for adults. Everyone will agree that it would be wrong to punish the weak-minded as we punish the strong-minded; but it is perhaps open to question if we could not assimilate our methods of punishment of both classes to a better way. Punishment, in its accepted sense, should be put far from our minds. We wish to furnish incentive to right conduct — nothing more. To that end we must eliminate as far as possible all personal element. The patient must not feel that we are unpleasant, or angry, or injured. We must borrow something from the Japanese policemen, who, I am told, are amongst the most affable and polite men living. Similarly the patient must not feel that he is being blamed or that his character is being called in question. All that is irrelevant to our purpose. We must associate the consequence of a wrong or of a right act with that act and not with the doer of it or with the judge of it. We should make it appear that it is part of the dispensations of a wise Providence that certain unpleasant effects always follow certain kinds of conduct, and that other things bring blessing. It is not to appear as our doing. The effect of such a method of fostering incentive is that the patient is

barely conscious of the moral relation at all. He simply grows along the lines of least resistance, and, if later he is capable of realising the sentiments appropriate to good conduct, he will the more easily do so after he has acquired the expression of it. What will be the line of least resistance depends upon the patient. In Mr Three's case, anything that made towards tobacco, pocket money, and freedom, offered an easy route to virtue. Anything that restricted these pleasures was to be avoided.

It is not easy to say what the personal relation between Mr Three and us really was. I think the officials in charge of him may be said to have succeeded in governing him without making themselves his enemies. He must regard us, I think, as the special vehicles of Providence, and perhaps he does not blame us for having to fulfil the rôle. (Now that he has gone, he is most friendly).

Until we realised the importance of the impersonal method, we had frequent rows with Mr Three. He was appointed laboratory boy at what was for him a princely salary. When he turned up an hour late, or broke a vessel, or neglected to change a solution, we used at first to be apparently seriously annoyed, and talked to him in an angry manner. But latterly, we as often as not merely mentioned the fact of the fault without any unpleasantness, and left Mr Three to discover at the end of the week that something corresponding to his fault was deducted from his weekly wage. This was all the more impersonal because a daily record was kept of his hours and of what he had earned, so that there was rarely any need to refer to these unpleasant subjects in conversation.

Now and again Mr Three let himself go in the dining-room, and denounced Mavisbank and all its works and ways in vehement and private language. Sometimes he would say the same sort of things on less public occasions. But the result was the same, and always very successful. When the next meal hour came he would find a place allotted to him at a table in a private room, where the old, and paralytic, and epileptic have their meals. The diet there is unfortunately very monotonous, for we are compelled to have only what it is safe to give to patients who do not chew and who are very apt to choke. Mr Three would enquire anxiously as to the reason of this change, and would learn that the doctor had heard of his "illness" at the last meal, and had arranged for him to be in this quiet room along with other nervous invalids who required special diet and special attention. The inference was that we regarded his violent

language as a kind of "stroke," and felt anxious about him. At all events, the treatment for this particular form of illness was very effectual in preventing subsequent manifestations. That, it seems to me, is the only legitimate test of the value of the now fashionable view which inclines to regard extreme forms of vice as varieties of nervous disease. If the view leads you to more effective treatment, by all means hold it fast. But if it leads to a coddling treatment, which condones vice without remedying it, it disproves its value.

The fact that a patient's sensibilities are blunt by nature, and that he has a defective perception of right and wrong, is held by some to be a reason why you should mitigate the rigour of the punishment which would otherwise be meted out to the offender. For my part, I have never been able to follow that argument. If a man's nature is remote from ordinary inducements, and not amenable to ordinary discipline, you must make your discipline and your inducements extraordinary enough to reach him effectually. Moreover, this is what we do without saying it in the case of nearly every lunatic who is confined in an asylum. In one regard, insanity is nearly always expressible in terms such as we apply to so-called sane offenders. Mania is a breach of the peace, whatever else it is ; kleptomania spells theft ; planomania is vagrancy ; homicidal insanity includes assault and battery ; suicide is suicide. But instead of putting the insane offenders in a prison we put them in an asylum, and instead of speaking of their punishment we call it treatment. The chief difference between the two is that the asylum method is the more often successful. The reason is that, while it is, in a sense, a more severe method of dealing with the case, it is designed to minister directly to the state of mind of the offender. For example, in Mr Three's case, when he had outstayed his pass to town by several hours, and had kept a man waiting up for him, he found that these passes, which had been allowed to him two or three times a week, somehow stopped altogether for a fortnight, and he was compelled to confine his walks to the asylum grounds. That was much more severe than the reprimand which a sane offender would generally incur for a similar impunctuality. Accordingly it was more deterrent. When he stole a cigar, after he had been expressly told that they were not there for his use, his weekly supply of tobacco was stopped. When he lost a book, or used someone's slippers or clothes, rather than use his own, his pocket money was docked. When he was late for a meal he got nothing to eat. And until he got over nearly all his bad habits he was detained in the asylum "during the pleasure of the medical superintendent." Criminals would think that a desperate term of punishment ; but until the State recognises the insanities of the moral nature, and makes provision for them, we shall go on for ages with the endlessly futile punishment of habitual offenders.

Mr Three left the institution about a year after we began the special moral treatment. He then went into residence as a boarder in a private family, and there he still remains. We see his business announcements occasionally, for he is prac-

tising a profession, and in every respect he seems to be a reformed character. Lately he called, and, in my absence, borrowed a volume of Browning. But he wrote to acknowledge that he had done so, and in a few days, to my surprise, he returned the volume with a polite note of thanks.

To summarise the points which this case would emphasise as important in the moral treatment of mild criminal insanity, I should say that the following principles were illustrated :—

(1) That the aim should be to reform conduct and not, in the first instance, to educe moral sentiments.

(2) That deterrents and incentives should be employed which appeal most directly to the habits and tastes of the offender.

(3) That the unpleasant consequences of wrong acts and the blessings which follow good should be made to appear providential and impersonal, by not suggesting the idea of anger on our part, and by not implying praise or blame of the patient.

(4) That the more inaccessible a patient is to the ordinary motive of right conduct, the more penetrating must be the remedies for his offences. That is, they must be more "severe," but appropriate.

(5) That the disciplinary treatment should not impair the patient's health. (For example, a continuance of low diet is bad).

Postscript.—Nearly a year after his discharge, Mr Three continues to be well-behaved, and his "practice" increases.

MR FOUR, AET, 17; DURATION SEVERAL YEARS; RECOVERED FOUR YEARS AFTER ADMISSION.

A boy with congenital cataract and of very neurotic constitution, addicted to masturbation and suffering from an adolescent form of Folie Circulaire.

The significance of masturbation.

There is a delicate difference of opinion among physicians as to the importance of the sexual element in insanity. At present it is the fashion to hush up the subject to a considerable extent, perhaps in reaction from some authors, who not long ago made these things the subject of popular and lucrative treatises. But, as there is no chance

of this volume coming into the hands of the million, it may be not uninteresting, and not even indelicate, to at least indicate some of the points at issue.

That insanity has a definite relation to the reproductive crises is an established fact. Puberty, adolescence, and the climacteric are periods of mental stress. In nearly every case which occurs at these periods you will find that the mental content is apparently largely sexual. That of course is natural; because, if the changes in the reproductive organs at these periods are far reaching enough to disorganise the mechanism of mind, it may be assumed that the disturbance will first be felt in the mechanisms which represent sexual feeling and sexual imagination; and that, if the basis of self-control is impaired, the disability is likely to make itself known in relation to the ideas of sexual acts. Insanities of these periods are but the disorders and excesses of the normal mental effects of reproductive developments. The self-consciousness characteristic of puberty; the sentiment, the desire, the ambition of adolescence; the regret, the rebellion, the deceit of the climacteric are mental incidents and effects occasioned by impulses from the changing organs which lend a specific quality to the brain activities of the moment. Let these waves of visceral stimulation be too strong, or the brain paths, so to speak, not organised enough to guide them, and self-consciousness becomes total disregard of others—a blank of object consciousness; desire, ambition and rebellion break bounds and revel in violence; regret becomes suicide; deceit, delusion.

A much more vexing question, however, is that which asks to what extent sexual indulgence, or excess, or perversion, leads to insanity. Hitherto it has been the custom to minimise the importance of these factors in the causation of mental disturbance. The resort was easy to the time honoured euphemism that it was more true to say that the sexual offences betokened weakness of intellect than that they caused it. That may be true of some cases, but it is certainly not true of all, probably not of most of the cases in which sexual acts have been prominent. It is a pleasantry which fathers and brothers like to hear, but it is somewhat misleading, and it is uninstructive. It furnishes an excuse for *laissez faire*, it begs the question, sets aside the need for precaution and reform. Yet I venture to think that a large section of the public who know what is what will agree that it is time that parents and schoolmasters learned the truth about these things. Where they are to get it I cannot say. But one might recommend practitioners, and especially children's doctors and the physicians of public schools, to read the articles in Tuke's Dictionary of Psychological Medicine on sexual perversion, sex and insanity, and especially Dr Yellowlees' article on masturbation. A few considerations pertinent to the question will occur in connection with the following case, and with some others which will be recorded later.

This patient, Mr Four, it seems to me, had as hard a fate as is often the lot of the insane. Born a weakling, of weak parents, and in not wealthy circumstances, he had the misfortune to escape complete idiocy; he was intelligent enough to have great ambitions; moral enough to strive after a good life; just rich enough not to be supported by

the ratepayer. He suffered from congenital cataract in both eyes—a disability which has led to much of his mental trouble, and which has proved an almost insupportable burden upon the patience and kindness of his friends. He was a very neurotic subject—ill nourished, of small recuperative power, difficult of nutrition, awkward in attitude and in gait, a bad and dream-tormented sleeper, constipated, anæmic, unstable in control, fanciful, and narrow-minded. He could not be educated along with other boys in a class, and his people could not afford good tutors. Much of his education has been by the charity of kind females who had patience enough to take pains with his blindness. No rough and tumble life was possible for him. He grew up uninformed, physically inept, serious and thoughtful, fond of women's society, never likely to be in a position to marry.

Before the age of puberty he had acquired the habit of masturbation, and he very soon manifested symptoms of mental disturbance too severe to permit of treatment at home. For two or three years, some of them spent at Mavisbank, he had a quite regular seasonal change from exaltation to depression. In spring he was fairly wide awake and excitable; in early summer he was exalted, unreasonable, and sometimes violent, but quieter and more even later; in autumn he became dull and depressed; and in winter he sank into stupor, from which he gradually awoke to sense again. The change in mood was very marked, and its periodicity strikingly regular. In the autumn months one would easily observe the decline begin. He began to be less sociable, to spend much of his time alone, to wear a sad and burdened expression. When interrupted in his solitary musings he was apt to be irritable, and, if startled, to become violent in language and in gesture. This depression did not develop into a form of delusional melancholia, nor did it assume the characters of an agitated type. It merged instead into a stupor, in which the patient rarely showed any initiative at all, rarely expressed himself except when an oath escaped him or when, in impulsive anger, he threw chairs or tore up books. In spring he gradually awoke again, and quite often the rebound would carry him past cheerfulness into excitement and extravagance. Then, in a few weeks, he would settle down into a reasonable and quiet humour, which would persist until the dread of the winter's apathy ushered him into its depressed stage again.

It was during the summer that he first spoke to me of his habit, and expressed a strong desire to overcome it. I was not his sole confidant, for he was apt to talk too freely on the subject, and not always to men. There is often in these cases what Stevenson calls an "inverted gusto" (speaking of the purity preachers)—a feeling which is essentially sexual, but which finds expression in condemnation of the vice. It is a modified pleasure which the vicious take in dilating upon the feelings from which they express a desire to be freed. Mr Four was not so much ashamed of his vice as convinced that it did him bodily and mental hurt. Although a very religious man, he did not seem to regard masturbation as a great sin. On the contrary, he inclined to believe it to be a providential compensation for one who might never have a lawful wife. But he greatly disliked its effects and watched anxiously for them.

The treatment in his case was no other than what any man of common sense would advise. He was not allowed to sleep alone or to be much alone at any time; he might not go to the closet except under observation; he might not walk out alone unless for some definite end which we subsequently verified. I inquired occasionally in direct terms as to the progress of his cure, and could trust his promise to tell me when a breakdown occurred. Definite work and definite exercise were allotted to him; he did not have many idle moments. The physical treatment was entirely general. We treated the constipation carefully, thinking that it did its part as a sexual excitant; a diet quite free from butcher meat was his own choice, and we gave him good doses of the three oils—cod liver oil, castor oil, and olive oil.

The good results in mental tone from the cessation of the habit and from the treatment for it were very soon obvious. He gained enormously in muscular and nervous energy, but not more than in intelligence. He continued strong and active through the winter, both in body and in mind, was much more manly, associated less with women and more with men, refrained from prurient confidences, and became even in his temper and never resorted to the violently destructive methods which he formerly adopted to express his anger. When he had passed the spring and the summer without any serious excitement, and the early

autumn without threatening depression, we discharged him. He was quite well enough for life outside. For various reasons he preferred to live away from home, and so he settled down in our neighbourhood. I had opportunities of seeing him often, and there was no doubt that he was a different being.

It is likely that some will say that this was a coincidence, this recovery from mental disorder following the cessation of the habit; but I do not think so. Evidence to the contrary is furnished by the fact that, about eighteen months later, he was residing with someone who annoyed him, and in whose house he was not comfortable. I am told he had made a bad companion in the shape of a young man who was also addicted to bad habits. Anyhow, he resumed his vice; and that was almost immediately followed by a renewal of his mental symptoms. He became depressed and irritable, inclined to lie abed all day, threatened to become violent, and lost weight and colour. At his own request he returned to us as a voluntary patient. After three months' supervision and bracing up, his habit again relinquished, his nerve restored, he was once more discharged recovered, in better health and in better reason than we had ever known him previously.

All that this case indicates is, that in a bad subject masturbation may lead to insanity. In this respect he illustrated what is to my mind a most important truth concerning sexual indulgence—that its effect upon the mind depends upon the patient's point of view. Some patients regard it as the unpardonable sin, and gradually arrive, *via* melancholia, at that nemesis which is called dementia. Others take what is called a sensible view of it, and on them comes only the nemesis of an unhealthy imagination, and often an unhealthy body. Mr Four was the kind of youth who could not forget his vice. Had he been able to indulge and straightway to forget that he had done so he might have escaped most, if not all, the bad effects. But he brooded over it and sank under it. Also, we must bear in mind his congenital defect of recuperation. There can be no doubt that sexual indulgence is exhausting to the nervous system, and, in a badly constituted person, may be fatally so. Similarily, we may add that what is normal, or at least not hurtful, in one man, may be gross excess in another. Mr Four broke down under a habit of comparatively infrequent indulgence; he did not masturbate many times in the day as bad cases do. But the progress of his case, at least, justifies us in saying that, when we quite truly say of such a case, that vice was the sign of an unhealthy mind, as well as its cause, we have not by any means proved the value of a policy of *laissez faire*. If the mind is congenitally defective it can, on that account, the less withstand the fatigue of sexual over-activity. Whenever we diagnose masturbation

in a neurotic boy or girl, it becomes a duty to promptly check this drain upon the already insufficient energy.

In Mr Four's case there has always been, and still is, an important personal relation in treatment. His is the kind of case in which it is quite indispensable. His insanity was mixed up with vice, and was greatly determined by his "conscience." I do not think he would have recovered had he not treated someone as a father-confessor, who had both an outward authority and the influence which is the result of a mutual understanding. He is now in every respect a stronger man, and lives in the city as a student.

MR FIVE, AET, 16; DURATION, 8 MONTHS; RECOVERED 9 MONTHS AFTER ADMISSION; A TYPICAL PUBESCENT MASTURBATOR.

The Question of Circumcision.

The case of adolescent folie circulaire, with masturbation which we have just recorded, was not, by any means, a typical case of masturbational insanity. Mr Five's form of mental disorder approached much more nearly to the recognised type.

Although he came of an unhealthy stock, Mr Five was not a markedly neurotic boy. He had not the same excuse as Mr Four for his vice. But he had the misfortune to have a very long prepuce, and his habits were far from cleanly—both of which are important in the etiology of masturbation.

Insanity in this case took the form of wandering away from home on errandless walks by day and by night, during which he behaved in extraordinary ways towards the public, and brought himself under the observation of the police at times. He was very much inclined to be religious, and accosted many passers by with questions as to their salvation. Later, he became moody, drowsy, tired, and indolent. On admission, he had the unmistakable appearance of a masturbator. His muscles were very flabby, his complexion pasty and pimply, his skin unpleasantly moist and cold, his eyes heavy, and his manner listless and weary. He had no energy for activity, either mental or bodily; he only wished

to lie still and to do nothing, He probably had no thoughts, properly so called, for the brain was too weak to carry an idea. In a few days his stupor deepened, so that he would spend a long time without speaking or moving more than just a fraction of a limb at a time. He stopped eating and had to be fed. He had spermatorrhea, and he was constantly watched, night and day, to prevent masturbation, which he still would indulge in constantly. The habit had completely overthrown and possessed his brain so that, at all hours, it dictated only one form of impulse — that to sexual excitation. Sexual feeling was apparently the sole content of his mind, and the sexual act its constant correlative. He in short presented a typical extreme case of masturbational insanity in all its unpleasantness. Masturbation had induced insanity, and insanity carried on the masturbation. In a few weeks, with careful supervision and absolute prevention, he recovered, and, with the help of tonics, hard exercise and good feeding, he regained his nervous tone. It was many weeks, however, before he got past the appearance of listlessness.

In a case like this there can be no doubt as to the importance of the habit. It undoubtedly was the cause of the insanity as far as anything may be called a cause. Other things may of course have contributed, but nothing of anything like so much importance as the vice. The subsequent course confirmed this view.

When Mr Five had been with us for six months, when he was alert and interested, healthy and ruddy, he asked permission to sleep out of the observation dormitory, and to be allowed " parôle of the grounds." As usual, we erred on the side of trusting him too soon, and gave him the liberty he craved, and the less effectual night supervision. He was allowed to sleep in the same room as an attendant, who, however, was not intended to stay awake to watch Mr Five. For some weeks, under the new regime, he did so well as apparently to justify the change. But a relapse soon afterwards occurred, which demonstrated that we had committed the mistake which may now be said to be the prevailing error in asylums, especially in treating cases of insanity associated with vice. We had sacrificed safety in the attempt to furnish a pleasant incentive to further progress.

Two kinds of premonitory symptoms aroused our suspicions that Mr Five had resumed masturbation. They are

both so common in this form of vice as to be quite important diagnostic signs. One was a precarious and sometimes exaggerated appetite for food and for drink. While the appetite in general began to decline, although no more, perhaps, than the onset of the warm weather justified, Mr Five would now and again, without excuse, consume a literally huge meal. If there has been no long fast, no severe exercise, and if the *menu* is not specially tempting, such boulimia in young people is suspicious. Similarly, when nothing justifies severe thirst, masturbating boys are apt to swallow huge quantities of water, and often at odd times, such as just before breakfast or between the early courses of dinner. The other suggestive symptom was an attack of what is called faintness. In boys who have no recognised heart lesion, these attacks are very suspicious. Of their exact nature it is not easy to be certain. They are characterised by facial pallor, a flabby pulse, and an incomplete abeyance of consciousness. But I have never seen so complete a loss of consciousness and so complete a prostration as one is familiar with in anæmic girls, for example; and, on one occasion, I have seen a quite distinct clonic invasion of the facial muscles of one side. The idea, therefore, readily occurs that these so-called fainting attacks in masturbators are of the nature of *petit mal*. But, in my opinion, that suggestion ought to be qualified by the remark that *petit mal* is a very varying quantity and that it often has a direct cardiac relation.

Finally, when one day Mr Five was stupid and confused and inclined to be resistive, we restored him to the class of completely supervised patients, and at night he returned to the observation dormitory. As formerly, he soon recovered energy and interest when the masturbation was checked.

Meanwhile, it must be recorded that signs are not wanting that Mr Five is, and probably always has been, somewhat weak-minded. He plays a good game at draughts, and, by a curious coincidence, he is also a fairly good draughtsman in the technical sense. But these are the only two things in which he seems at all to excel. He is a stupid boy, and he has very little purpose. We were asked to advise as to his future career, and, considering his capacity and his history, I recommended such a life as that of a country builder, contractor, and architect. So far, Mr Five responded to the suggestion, but, as soon as he was sent to see and to take part

in roadmaking, in building, in joinery, or in painting, he could not by any means be induced to show serious interest or purpose. More than that, he began to manifest what was, at his age, a childish perversity. Not content to refrain from doing what he was told not to do, he did what he should have left undone—interfered with, and spoiled, the work of his neighbours, set himself to demoralise better disposed patients, and occupied himself in teasing and in bullying the helpless.

So again the question arises—Is not Mr Five's masturbation another manifestation of a weak mind? Certainly it is. But, if weak people masturbate, they become more weak, and, when they become weaker, they masturbate the more. So again, we may repeat, that, if a masturbator is in any sense of weak mind, that is all the more reason why you should deal vigorously with his masturbation. The vicious circle must be broken.

A new point arises, in that I have taken it upon me to advise circumcision in this case. I do so advisedly, because I think there is a right and a wrong way of using circumcision, a right and a wrong time in which to circumcise. At the very beginning of the habit, when the boy's health is not seriously impaired, if he comes to you, as boys will, in real anxiety because this habit, which he began ignorantly, threatens to dispossess his mind of peace, disturbs his conscience, swamps his attentions, and saps his will, circumcision may help him if he is taken at the proper "psychological moment." In such a case, you may, with care, enjoy his complete confidence; you may, by prescribing day and night companionship of a safe kind, hard exercise, interesting work, quieting diet, perhaps a sleeping draught at first, elevating reading and society, and the incitement of high motive—by such general means you may inaugurate a reform which, for at least a year, you should expressly supervise. If, however, the enlarged prepuce occasions peripheral stimuli which suggest vicious indulgence, circumcision may be called for. Otherwise, if by careful cleanliness and other means these peripheral sensations are in abeyance, circumcision may be postponed. Then, when the patient is nearly out of the wood, it is probably wise, in all cases, to circumcise, taking special care to have the help of a safe male companion as *quasi* nurse. You are then in a position to explain to the boy the proper form of the sexual function and to impress upon him that your operation has disposed of the only excuse for his perversion.

On the other hand, if the case comes to you too late, when insanity is imminent or actual, when the attention is chained to sexual subjects, circumcision will only add a link to the chain. But even then, in most cases, it is not too late to mend. If physicians are energetic to check the habit, if safe supervision by night and by day is insisted upon, and if general measures such as have been indicated, are employed most cases are hopeful. But still, as in Mr Five's case, circumcision should

be postponed until such a moment arrives when the patient is in earnest about his reform, fully alive to its consequences, and able to undergo the operation without fear of hurt to his health, and without the probability of recalling his attention too attractively to sexual subjects.

Mr Five was "discharged recovered," after about nine months of treatment, but there is no great promise in him of an energetic and stable life.

Mr SIX, Aet, 24; Duration, 7 Weeks; Recovered 8 Months after Admission.

Adolescent suicidal melancholic, mismanaged at home. Precipitation. Dislocated shoulder, Slow recovery in the asylum.

The question of home treatment of insanity.

The case of Mr Six is one which we need consider only as throwing light upon the question of home treatment of insanity. He was a young man of neurotic constitution and of unfavourable family history, who was left fatherless at an early age, and upon whom fell the responsibility of an anxious business and the care of a delicate mother. Domestic relations added to the worries of his life without affording compensatory pleasures.

Some months before he came to us, Mr Six began to turn his mind seriously to religious subjects, and dwelt upon their gloomy side. It seemed to him that the more he thought about these things the more puzzling they became, and there was no one of his own people who could enter into his trouble and give him help. In a neighbouring farm, however, there was a young lady with whom Mr Six had been familiar all his life. She had never been noted for the more spiritual religious activities, and, indeed, might be said to be more occupied with her work and with the frivolities of a merry youth. To her, all the same, Mr Six went for consolation, and received it. She did not, perhaps, contribute directly to his theology; but she was of considerable personal attractions, and Mr Six soon found his mind occupied with things other than

purely religious. The girl, it need hardly be said, was quite ignorant of the gravity of the case. Mr Six seemed very friendly, and she was not disposed to be unkind. That was all. But, as in Mr One's case, this sympathetic girl soon took full possession of the young man's mind. In a few weeks this love affair became apparently a matter of life and death to Mr Six. From the slim fabric of occasional and purely chance meetings—at least, so far as the girl was concerned—he built tall castles in the air, with his newly discovered sweetheart always the presiding inspiration of his plans.

Presently Mr Six found, to his horror, that the business which he had somewhat neglected of late, promised very little in the way of a substantial road to the realisation of his hopes. And so, very easily, the dreamy lover became the anxious mope. Night after night sleep would refuse to come to him; he lost appetite and colour and weight; his spirit was gone, and hope deferred. The accounts of this period were most romantic. In his sad humour he could not rest; his friends were an annoyance; his work a nuisance. Long nights he spent wandering in the lonely fields or listening to the sea. And all the time no one knew more than that something — probably love — was disturbing his mind.

Unannounced and unexpected, Mr Six arrived in Edinburgh in the middle of this depression. There, at the house of a relative, he appeared so ill that a physician was summoned, and the patient was treated for a "nervous breakdown." One might suppose that, by this time, when a young man writes an agonised letter to a girl to say that "it must be all over," when to her mind, "it" had not yet begun, and when he speaks of ruin and looks the papers daily in the expectation of seeing himself gazetted as a bankrupt, that these might be taken as signs that the mind of the man was in a precarious state. He was, however, treated only for general symptoms. His digestion, his excretory functions, his circulation, his sleep, were all out of order, and called for treatment; all of which was quite true. But his people and the physician failed to recognise that, when a wave of depression overtakes a patient, and when, to general bodily symptoms, special symptoms of mental disorder are unmistakably added, the case must be watched with the utmost care, to discover and to provide

for the cerebral condition. For want of that, after a short time in a convalescent home, Mr Six returned to his friend's house and threw himself over a three-storey-high stair. To his own surprise and that of others he escaped with only a dislocated shoulder; and then he was sent to Mavisbank.

The subsequent progress of this case need not be dwelt upon. There were many ups and downs, and the suicidal element was often very strong. But at the last Mr Six made an excellent recovery, and returned to his home very well and very grateful. His was one of those unsophisticated, rustic minds, which enter into new ideas without losing old-fashioned sentiments. Long talks he would have about "improvements" and "discoveries" in agriculture, and in other industries; but the interest these things had for him was as nothing compared with the desire in his mind for personal affection. There was always someone for whom he "had a great notion," and it meant more than anything else to him if he knew that his affection was not to be thwarted. It had been a great distress to him that, from the time he left home, nobody understood him. Later, when he looked back upon his own case, he was unfeignedly surprised and pleased. He had escaped death by precipitation, by something very like a miracle; later, he thought, he had been as unlikely a companion as possible, and yet people were more than civil to him, and no one cared to blame him. It was all very strange and very happy, and he was greatly helped by the friendliness of it.

The sort of things this patient used to say—extravagant, some of them, so that one almost doubted their sincerity—when he spoke of his companions as a castaway might speak of a voluntary deliverer, make one wonder what may be the "mental content" in a patient who is to all appearance only maniacal or melancholic. I have a mystical belief that far more of the insane than are supposed preserve, through all their madness, an under-current of self-consciousness, sane and consecutive, which is apart from their superficial activities. From the conscious mania of Mrs Twelfth to the paralytic-dementia of senility, we may entertain, about all the insanities, what may be called a fiction, which has at least, I think, the fashionable quality that it can neither be proved nor disproved. The fiction is that, behind the mask, the spirit of the man or woman dwells more or less apart from conduct, aware of what the senses are per-

ceiving and of what the muscles are doing, but disabled, except at times, from directing these activities. It may be aware of foolish words which the mouth is uttering, aware of mad gestures, aware of wrong and untruthful ideas; it may be aware of a deadening of all outward faculty; it may know that part of the nature is rushing ahead of the rest in a whirl of excitement, which usurps all the avenues, both of sense and of expression. Yet all the time it may be unable to express itself either in discrimination or in purposive acts. And sometimes—it is pleasant to fancy—an insane patient who realises what he may regard as wrong activities, may be greatly helped by the attitude of those who, entirely ignoring what appears, still appeal to him as what he is. It is like the relation between a man who has become hopelessly incoherent in aphasia, and perhaps a son who knows all that the old man wants to express, and who still upholds the filial relation in spite of the veil of foolish words which the physical disability hangs between them. At the back of the brain, so to speak, the real self is still there, distressed it may be, or perhaps complacent, while, to use a figure, the wires are cut, so that he cannot communicate with you; or, worse, someone else is using them and sending out messages which purport to be from the real person, who still finds himself, as in a nightmare, unable to lift a finger to prevent these misconceptions and misrepresentations. If there is anything at all in such a fiction, then there is something to be said for the companion of the insane who has learned to still regard them as persons, and who manages to be always kind. For when the saner self is perhaps trying to assert itself, it cannot but be a help that there is someone hard by who is an encouragement.

These things, I think, could be expressed in terms of physiology, or perhaps in terms of the "supraliminal" and "subliminal" consciousness; but I refrain from that digression to choose another which most students may perhaps think of greater practical value. Mr Six's course from first to last raises the important question of Asylum *versus* Home Treatment.

With a few implicit reservations of no great moment we can probably lay down rules which will determine in all cases whether home treatment or asylum treatment is indicated. We may begin by saying that, in all cases, home treatment is to be preferred, provided that it can be efficient. We may also say that, for all purposes which may be generally described as tonic in the sense of nutritive, treatment in a carefully

selected private house is better than asylum treatment. But, at the risk of being supposed to express a prejudice in favour of specialists, we must promptly add that mental skill in mental disease on the part of the physician in charge is a *sine qua non* of treatment in a private dwelling. The physician must be expert in mental science ; he must be a student of mental states ; he must know the significance of what the patient says and does ; he must not only be able to diagnose that the mind is affected, but he must be able to diagnose the variety of the mental disease ; he must be acquainted with the usual developments in illness of a similar kind to that from which he has diagnosed his patient as suffering ; and, lastly, he must be familiar with the treatment, dietetic, tonic, and moral, appropriate to the malady. A physician ignorant of these things who attempts to treat a mental case is, in my opinion, acting criminally—as the ordinary mental specialist would be did he attempt to treat, say, ophthalmic cases. Then, companionship and nursing must be skilled. In many cases of insanity family relations are a source of irritation ; which is part of the curious general rule that people who are in bad spirits often find it easier to be on good terms with strangers than with relatives. The bracing effect of change probably accounts for the good effect which one often sees follow removal from home. Men, and also women, however, differ in this respect, and it requires careful enquiry to discover whether or not removal from home is indicated. Some people are so bound to their friends that, even when it is absolutely necessary, separation is a misfortune. But removal from home does not necessarily mean removal to an asylum ; and many cases recover in well-selected lodgings. Apart from family irritation, however, there is this important point that insane cases do require special moral treatment. In general, the principle of asylum treatment is that it affords distractions which divert the mind from its insanity. In order to this, the residence selected must afford a certain amount of privacy, and, at the same time, an opportunity of sufficient exercise and occupation. The companion of a melancholic should be one who does not fail in sympathy with the patient, but who, from morning to night, exercises his skill to keep the patient off the special subjects which do him harm ; and there is a great skill in ignoring insanity. There are very few cases which do not require to be under the control of an expert nurse or attendant. Lastly, safety is essential. No case should be treated where complete supervision both by night and by day is difficult or impossible. Similarly, the patient must be in a house where doors can all be locked, where he cannot shut himself into a room and defy his attendant, where the windows can be secured, and where all dangerous weapons and all opportunity of self-destruction or of assault are not likely to present themselves suggestively to his imagination.

To summarise, we may set down the following as the conditions of treatment of the insane in private dwellings :—

(1.) Special knowledge on the part of the physician.
(2.) Freedom from the irritation of friends.
(3.) Skilled companionship and nursing.
(4.) Exercise and interesting occupation, if prescribed.
(5.) Absence of the suggestion and the easy opportunity of suicide or of homicide.

MISS SEVEN, AET, 26; DURATION, 4 YEARS; UNRECOVERED 3 YEARS AFTER ADMISSION.

A hysterical, anæmic, adolescent girl. Acute mania, becoming milder and recurrent. Long course of illness. Failure to induce recovery.
Great improvement after Thyroid feeding.

The irrationale of Thyroid Treatment.

Miss Seven has been very thin, very pale, and very hysterical for many years. The hysteria in her case took the form of a general silliness, especially in her manifold love affairs, a silly vanity, excitability, and occasional violence. Just before admission, she had got all manner of fancies of an amorous nature into her head, and had also begun to believe herself a person of the first importance in the world. Attempts to restrain her met with ill success, often with violent scoldings, and sometimes with blows. She was very ill nourished when she came to us, and remained so for a long time.

Miss Seven has been a patient at Mavisbank for over three years now, and for a very long time her case was one of persistent excitement and general rebelliousness. At one time she called herself the Queen, at another a countess, and whenever she becomes excited she begins to be insanely snobbish. Her motor excitement nearly always confined itself to talking, except on one or two occasions when she struck people, threw something across the room, or broke a window; but these manual efforts have been rare. In fact, we have done all we could to divert the insane activity from her lips to her hands without material result. We tried, by a system of rewards and punishments (such as withholding tea), to induce her to keep silence for a couple of minutes frequently during the day, but she could not refrain from speech. Similarly we tried hard to induce her to use her hands in all manner of ways, but her idle nature and her insane ideas of what it befits a lady to do prevented her working, and when she played the piano, or tried to play croquet, her tongue was going almost constantly. The mechanisms of language are the most ready vehicles of

expression of the mental state and the most closely related to the organs of mind. It would have been of use had we been able to divert the currents of excessive activity from them and so rest the exhausted parts of the brain. But we failed to accomplish it. Sleeplessness has not been a marked feature in this case, though she had very bad nights occasionally. The menses were suppressed at the time of admission and again during thyroid treatment; at other times they have failed of complete regularity. Constipation has been marked. Treatment forms the most interesting feature in the case.

Recognising from the first that anæmia was an important factor in the case, we put Miss Seven on iron when she came to us, but it made no difference to her pallor. Steel drops were first tried without success, and arsenic, and then we resorted to iron and aloes pills. We find these useful, because a great many insane patients can take large doses without undue relaxation of the bowels. Various forms of Blaud's pills were also used without success. At that time, summer '96, she was having paraldehyde at night in small doses. In August we put her upon sulphonal, a drug which we used freely in subsequent stages also. There are two methods of using sulphonal, both of which are useful. One is to keep the patient very slightly under its influence, so as just to blunt the mental functions and reduce the excitement. That is often very useful in cases of undue activity of the imaginative and ideational centres, but is of very little use in a case like this, where there is persistent and general excitement. The other plan is to rapidly induce coma under the drug. In a full-grown man, thirty grains may be given the first night, and on the following morning if the patient shows no ill effects. During the day the dose may be repeated two or three times until the patient is constantly quiet and drowsy. The quicker coma is induced the less chance there is of sickness. The patient should be kept in this semi-comatose state for four or five days. Care must be greatly exercised over the feeding of the patient, as sensibility is dulled, and food may enter the lungs. This method is specially useful in cases subject to short bouts of excitement; but I have also seen it check a course of persistent mania. It failed, however, with Miss Seven.

In October, as the weight was coming down in spite of all diet, we pressed emulsion of cod liver oil without good

result. Careful examination of the lungs gave negative results, and we regarded the case as one of neurasthenia, as generally understood. In January of 1897, we put her to bed for a course of Weir Mitchell treatment—complete rest, excessive feeding, and massage. At the same time, cod liver oil was administered, and palatinoids of aloin and nux vomica. Fortunately, the patient's stomach was tolerant. A slight increase of weight followed this treatment, but there was no material improvement in mental health. It was evident that there was some obscure constitutional defect, probably in the blood-forming systems.

In June, 1897, it was decided to try thyroid treatment. The following are the particulars of the method and its results :—

Thyroid doses of from five up to two hundred and twenty-five grains in the twenty-four hours, spread over five weeks, and gradually diminished ; patient kept in bed for a week after cessation of drug.

Temperature never rose above 100 degs. F., and only rarely reached 99 degs.

Pulse increased in rate from an average of about eighty to an average of about 110 per minute. It became fuller, and the tension did not diminish ; there was no impairment of rhythm.

Urine did not vary materially during the administration of the thyroid, but the average secretion increased after treatment. During the first week under observation, including five days without thyroid, the average daily secretion was twenty-six ounces ; during her last week in the hospital dormitory the daily secretion averaged forty-nine ounces.

Stomach was not injuriously affected by the drug. There was no sickness, and her appetite throughout was fairly good—quite as good as when not on thyroid.

Bowels were very costive until thyroid began. She would go for two or three days without a motion if medicine was not given. After the drug was begun she rarely required medicine, and on the three days following the administration of the largest doses of thyroid she suffered from mild diarrhœa.

Sleep was improved during the treatment.

Excitement was diminished.

Delusions were not materially affected ; but they were not prominent at the time the patient was put under treatment.

Other symptoms.—None of importance were noted, except that the patient complained of a sore throat, and we could see nothing to cause pain.

The patient was kept in bed for a week after the thyroid was stopped, and allowed to resume active life by degrees. She had lost more than a stone in weight, and as soon as the drug was stopped she became restless, slept worse, and talked all manner of nonsense. Then, as has often been said, a strange thing happened. Her epidermis began to scale off, flakes peeled like rind from her hands and feet. Then she developed whitlows on her fingers and a boil on her leg. It was evident that we had seriously disturbed the trophic functions. From these minor ills she very soon recovered, and presently we began to have the pleasure of seeing a distinct improvement in her mental state. The effects were very slow in being fully realised, but by the end of the year she had gained two stones in weight. Lagging a little behind her bodily improvement, her mind came on by degrees, and all the next year she was a quite different person from the Miss Seven of a year ago. Meanwhile, she only lacks steadiness and common sense. Perhaps we expect too much if we suppose that she will ever be fitly described as a sensible girl. We would discharge her without waiting for that consummation. But meanwhile she is not uniform enough in her control to allow us to regard her recovery as permanent. She has laid aside her extravagant notions of exalted rank; she is humility itself compared with what she was; she can talk reasonably on all subjects; she can even hold her tongue for long spells at a time; but, every menstrual period still upsets her, brings a severe headache, a slight loss of balance, and a tendency to flirt in a more silly manner than is normal to her. At these times also she cannot see that she is ill, and insists on doing anything she wants to do, including visits to friends.

As this is a case in which thyroid certainly proved to be of immense value, I wish to emphasise a few points in the character of the case. As has been the rule in the therapeutics of insanity, thyroid treatment is at present almost entirely empirical. No one can say what cases will benefit by it. No one, so far as I am aware, knows a rationale of the treatment. It behoves us, therefore, to observe and to record, with special care, the history and nature of the cases in which the treatment succeeds, and of those in

which it fails. It will be a thousand pities if this most useful method falls into disrepute—as it seems not unlikely to do—because of a haphazard and slipshod selection of cases for its trial, and because of carelessness in recording in detail the kind of subjects under treatment and the kind of effects produced.

Be it observed, then, that Miss Seven was young, fair, and slim, 5 ft. 4 in. in height. She weighed 7 stone on her admission in '96; she dropped to 6 stone 5 lbs. by degrees, reaching that low point in January '97; after thyroid she only weighed 6 stone 2 lb.; subsequently she climbed gradually to 8 stone 1 lb. She was very colourless and anæmic, but I am ashamed to confess that we made no careful examination of her blood—a point which must be regarded as of the first importance. Blaud's pills had been tried without success, arsenic, steel drops, iron and aloes, and Weir Mitchell treatment. She was habitually constipated. Menstruation was irregular. As to her mental state, she was hysterical and silly, and became at times acutely maniacal. The mania became chronic, with recurrences of acute exacerbations. If, however, mental states are any indication of suitability for thyroid treatment —which I very greatly doubt—we must do more than simply class patients under mania, melancholia, etc. We may add, therefore, that Miss Seven's mania was of a distinctly motor type. She had very little attention for sensory activities; there was no apparent tendency to hallucination. Further, the motor excitement invaded, almost exclusively, the ideational and speech areas. She laboured under a mania of conceptions whose expression was almost entirely limited to talking. She never danced, or ran about furiously, or turned somersaults, or leapt; and she very rarely made any purposeful use of her hands. As regards feeling, happiness was the prevailing feature. Her ideational state was one of delusional notions of exalted rank, and exalted feeling its accompaniment; anger, which was occasional, was secondary—the consequence of restrictions upon the full expression of her belief in her royalty.

The notable features of her reaction to thyroid were: that febrile reaction was slight, that there was no marked disturbance of digestion, that there was a marked increase of urinary secretion, and that there were pronounced dermic changes—peeling, whitlows, and boils.

Postscript, 1899.—Miss Seven is still in the asylum, because her relapses have been almost quite regular—menstrual—and they have become more severe. Her last few days of excitement were characterised by a recrudescence of the old grandiose ideas, and in her voluble expression of them she became at times quite incoherent; but it is remarkable that on occasion, as for example during a medical visit, she controlled herself so as to suppress insane babbling.

I am strongly of opinion that this patient can now be led into much greater stability by personal treatment. She has arrived at that degree of consciousness—as the result of thyroid—when she is amenable to personal dealing. All through she has been sedulously cultivated by the nurses. But she has idle and silly habits of years' duration to overcome, and she is always handicapped by a fragile constitution; for it is not easy to bear up under headaches and tiredness. That she is so very much better now however promises, I think, that she may become much better still. There are both primary and secondary defects to be combated. The secondary one in her case is connected with the reproductive functions, a periodic over-activity in the nerve centres related to ovarian function, which sets up a general excitability of a hysterical kind in the proper sense. But the trophic defect has its primary lesion also, in the fact that the higher centres are not fully developed. Given that we can maintain nutrition effectively, personal treatment may elicit a moral function which, so far, has been arrested in development; and, if so, she will then be able to override the periodic irritability of her lower functions.

Miss EIGHT, Aet, 35; Duration, 7 Days; not Recovered 3½ Years after Admission.

A case of sensory mania. Premature and unrelated climacteric insanity a probable diagnosis. Sudden onset after a surgical operation. No improvement under general treatment.

Treatment by ovarian tissue—no good result.

Treatment by Thyroid tissue—considerable improvement.
Treatment by Orchitic tissue—some improvement.
Sensory and motor types of mania, the former more grave.

Malnutrition contrasted with Irritation in Etiology.

This lady's case is of unusual interest, because of the occasion of her illness, the curious type of physique, and the persistence of her attack. She was one of a small family who were left orphans and poor at an early period of their lives—three girls, all trying to make a living for themselves. Our patient was the eldest, and assumed a motherly care of the others. On her the responsibility of the situation rested most heavily, and the worry. To make matters worse, she was certainly the least robust of the three. But she was a cheerful soul, brave and resolute, and accepted her responsibilities without shirking and without much fear.

At the end of a busy season, during which she had been much on her feet, a hernia, of long duration, began to be more than usually troublesome, and an operation was decided upon. As her home was not suitable, and money was a consideration, she went into a private ward in an hospital, and the radical cure was successfully performed. Iodoform was used in dressing the wound. It healed quite well, and the patient seemed to be going on satisfactorily, until one night, unfortunately, she got a fright with some other patient in the room, who was restless and apparently semi-delirious. This put Miss Eight off her sleep, and started a general nervousness. Day by day she became more and more restless and excitable, and began to believe and to say silly things, not yet the length of delusions. She entertained exaggerated likes and dislikes of those about her, and presently she found herself in love with one or two of her medical men, and of course discovered responses to her affection in their professional attentions. On the other hand, she took a violent dislike to some others, and was persuaded that they had evil designs towards her. By this time she had really begun to be insane, but she spoke so quietly, and had so many sensible things to say, as well as nonsense, that these delusions were just called the silly notions of a girl whose head had been turned by the

operation and by a greater amount of attention than she had been used to.

It is very easy for men who are not specialists to minimise the importance of mental symptoms in surgical and febrile illnesses. But the fact that there was no general condition, and no fever to account for head symptoms, made her doctors decide that Miss Eight was really insane. That diagnosis was very quickly confirmed by loss of control over impulses, and the patient soon became an almost ungovernable maniac. There was no great amount of incoherence, though the delusional talk still persisted, but there was a lot of screaming, a desire to run about, to throw things, and to use strong language. Still, it was decided to give her the chance of recovery without removal to an asylum, and this was tried for a few days. By the end of that time the patient was in a most grave state of bodily weakness, emaciated, exhausted, and of a very feeble, intermittent pulse. She had to be carried to the ambulance carriage, and, once or twice on the way out, she fainted and seemed about to die.

In a case such as this, in which there is a very obvious cause for the mental attack, in a person who has got well past adolescence and is not yet at the climacteric—for Miss Eight was only thirty-five—one expected a short and a slight attack of mania, provided that the exhausted physical state was duly recovered from. But in spite of the fact that a fortnight's quiet, with careful diets and stimulants, recovered the pulse and added greatly to the patient's general strength, and in spite of the most careful mental nursing and care, week followed week without any obvious restoration to balance and to control. The patient continued to be delusional, though she shifted her fancies from one subject to another; and she gained scarcely at all in power over her impulses to laughter and screams and sudden jumps.

Accordingly, we began to look more and more carefully for some unascertained cause of the mental illness. Her cardiac condition did not warrant so slow a progress; her lungs gave no serious indications; there was nothing of consequence discovered in her abdominal organs. Then it began to dawn upon us that the patient looked unduly old. Her face was, to use an expressive word, wizened; she carried herself with a slight stoop; she grew a beard; she had lost all her teeth. It seemed a case of premature spinsterism; yet she was still menstruating regularly. A

specialist who examined her under chloroform found that both ovaries were apparently free from disease, but very small; and that the uterus was also diminutive.

Supposing this diagnosis of premature spinsterism to be correct, several extremely interesting questions arise. Is the onset of the climacteric necessarily characterised by a cessation of menstruation? Or may the secondary characteristics of reproductive vigour cease before menstruation ceases? At puberty, there is not always an exact coincidence of commencing menstruation and the appearance of the secondary sexual characters. The mammæ, the pubic hair, the voice, the carriage, and, above all, the mental quality, may assume the more mature forms before menstruation is established; or, as more often happens, these secondary appearances may be postponed until a considerable time after menstruation has begun. Why not the same time difference at the climacteric? May not the secondary changes be postponed long after a woman has ceased to menstruate? Indeed, are there not many women who never become *passée* in appearance, in manner, or in figure, who never think of growing a beard, or of dropping their voices, or of ceasing to coquette? Contrariwise, as in the case under record, are there not women who become senile, and perhaps masculine in appearance, and climacteric in mind before ovulation has ceased? Assuming that probability, the most important factor is the premature mental change. Frequently, that consists, at the climacteric, in a general restlessness and discontent, irritability, fancifulness, suspiciousness, foolish regret, depression, spurious love-feelings, and eccentricity. And if these changes are fraught with danger when they occur, as the timely accompaniments of a pelvic change, how much more likely are they to be exaggerated and excessive, and to lead to an attack of insanity when they are premature? Untimely developments, at any crisis in life, imply an undue nervous instability; because it is a sign of inequilibrium in the nerve mechanisms if changes occur in them without the corresponding changes in correlated organs which are their normal occasion.

Granting the likelihood of the general argument, however, we have still to consider whether premature climacteric processes in insanity should be regarded as very grave, and what the effect is on prognosis. In the case we are considering, the result goes to prove the gravity of these conditions, for the patient soon began to go back, and, after about a year of treatment, was obviously inclining towards dementia. She became more and more incoherent, more delusional, more excitable, more impulsive; then, after a time, she settled down into a state in which excitement diminished, initiative was almost gone, delusions were strong, and incoherence, with hallucinations of hearing and of vision, neglect of person and unsociability, were very manifest. At that stage we began treatment by tabloids of ovarian tissue—about fifteen months after admission.

Considering that the patient was still menstruating and presumably ovulating, this treatment was perhaps inappropriate or at least unnecessary. She was in bed while the drug was being administered, and after it—for seven weeks in all. The following points were duly noted in chart form :—

Ovarian tissue.—We began with a dose of twenty grains in the twenty-four hours, and increased it gradually until the patient was having 100 grains in a day.

Temperature in this case was generally subnormal. Under the ovarian tissue, even in the largest dose, it never got above 99 degs. F.

Heart.—At the beginning of treatment the pulse was soft, though of fair volume, and it was irregular. The first heart sound was distant and not clear. There was no organic cardiac disease that we could discover. During treatment by ovarian tissue these conditions persisted.

Urine was measured each day. The ovarian tissue seemed neither to increase nor to diminish the amount; but the observations revealed a remarkable variability in this symptom. The amounts recorded daily varied from ten to seventy ounces in the twenty-four hours. There was nothing to explain the smallness of the secretion on the day in which only ten ounces were voided.

Appetite remained good throughout, and did not seem to be in the least impaired even by the large doses of the drug.

Motions were not affected by the drug. The patient was apt to become constipated, and this tendency did not diminish or increase under ovarian tissue. It was combated by salines and by palatinoids of aloin and nux vomica.

Mental state was not improved by the treatment. The patient was quieter in bed than when up and about, but there was no other change of note.

Four months later the patient was worse rather than better. Her whole appearance and manner were suggestive of dementia, and she was put back to bed again—this time to go under thyroid. Miss Eight was a patient to whom we were very anxious to give every chance. Routine treatment and careful companionship had failed; the patient must have everything tried which lent a shadow of hope, however empirical. As a matter of fact, thyroid might *a priori* be considered a more useful drug for the case than ovarian tissue, because, so far we were aware, the pelvic organs were active; it was the nervous and perhaps the blood systems which were

at fault. These are, of course, just the tissues which thyroid is known to affect—the nervous, the blood, and the cutaneous tissues.

The thyroid was pushed gently, but to considerable doses. Miss Eight was four weeks in bed, three weeks under thyroid. 100 grains was the largest quantity given in one day. The temperature never rose over 100 degrees F.; 108 per minute was her highest pulse rate; she was occasionally sick, but there was no other untoward symptom. The immediate effect on her mental state was negative or worse. A few weeks subsequently she became much more violent than formerly; but, under strong feeding and heavy exercise, that diminished, and she has certainly improved enormously in bodily tone since the thyroid. There is now also a distinct mental improvement. The dementia is no longer obviously imminent; she is much brighter intellectually, has much greater initiative and general interest; her self-control is much improved. Unfortunately she is more hallucinational, but her hallucinations and the delusions to which they give rise are very transient.

Postscript, 1899.—As the case did not further improve, but rather inclined to greater violence, a course of orchitic tissue has been tried. A quite distinct change immediately resulted—a patchy disappearance of beard, darkening of the hair of the head, and, in the opinion of nurses, increase of the mammæ. The voice very markedly rose in pitch so as to be at times piping, but it may be that the patient heard some suggestion of such a change. Mentally there was marked diminution of excitement. Unfortunately these changes have not progressed, and the patient is practically as before. It is suggested that ovariotomy should be tried.

Every little while one meets with a case such as that of Miss Eight, which seems to raise nearly every question which can occur as to the nature, and the causes, and the prospects of insanity. From year to year these questions become more numerous, and they become more minute—which one may regard as a sign that some of them are being answered. We may refrain from further consideration of the question of premature mental climacteric in this case, except to say that, assuming the unrelated change to be as we have supposed, one must not regard it as an incident only of the time of life when it became most obvious. Miss Eight was, so to speak, a spinster from her cradle. Physiologically, we can only mean by that that the feminine quality in her physique was not properly proportioned, that the "determinants" whose active development in embryo conditioned the number and the form, and the relations of the cells which become

the tissues of the reproductive organs, of the secondary sexual characters, and of the correlated cerebral, spinal, and visceral nerves, did not occur in normal proportion. In somewhat figurative language, some parts of Miss Eight's constitution were too female, others not female enough. And, in particular, we may assume that the cerebral and visceral and trophic nerve mechanisms most closely associated with the reproductive organs were of unstable vitality. And these factors in her insanity must have been part of a life-long peculiarity.

But, after all, why cannot we so condition these nerve mechanisms that they will react to their environment in a manner which will, at all events, not label the lady as insane? What, to be more explicit, is the difference between Miss Eight and Miss Seven? Miss Seven has, at least for purposes of argument, been cured. Miss Eight has not. The treatment was in both cases the same, in the sense that we did nothing for Miss Seven which we have not done for Miss Eight. Indeed, we have done much more. I have omitted many points in the treatment of this case, just because it seemed a weariness to the reader to reiterate the whole campaign. But here is a heterogeneous list of the various recipes, physical and moral, which have failed to recover this case: rest in bed, full extra diet, strophanthus, aloes and iron, sulphonal, sunshine and rest, digitalis and ergot, enemata, hard exercise, Weir Mitchell treatment, galvanism, useful occupation, paraldehyde, digitalis and ergot, pot. bromid. et cannab. ind., ovarian tissue, a "habitual diversion,"* ovarian tissue, seclusion in a darkened room, bipalatinoids of hypophosphites, nux vomica and aloin, salines, pil fer. et al., arsenic, etc., etc.

What really constitutes or underlies incurability? I trust it will not be considered rude if I say that when we are told that the age of the patient, the family history, the personal history, the cause and onset of the attack, the duration of the illness, are all important facts in guiding to a prognosis, we have learned nothing which is of great consequence. We cannot alter the family history of a patient, nor any other of these factors enumerated. The consideration of them does little more for us than merely induce us to be sanguine or the reverse. What we require is that we should understand *how* these things affect the recuperation of nerve mechanisms so that we may try to minister to the particular requirements of the case. If we were of a more physiological habit, and if we had a more particular and a more discriminating eye for each individual case, we would come much nearer to an answer to many of the riddles which confuse us when we sit down in contemplation of classes and statistics.

The fact that Miss Seven and Miss Eight both reaped material advantage from thyroid treatment, though in varying degree, inclines one to a comparison and contrast of the two cases, with an eye to this question of curability. To enumerate all the points of resemblance and of difference in the two cases would be tedious, and, to a great

* A "habitual diversion" is some manipulative or other exercise which the patient is taught to substitute for the expression of an insane impulse. For some time, Miss Eight carried pieces of paper, and, whenever the impulse came to turn a somersault or to scream, she had to make a small paper box instead.

extent, irrelevant. But there are a few points which seem to me to be of first-class importance and very suggestive.

	Miss Seven.	Miss Eight.
Heredity . . .	Not good.	Not good.
Disposition . .	Indolent, idle, selfish, silly, amative.	Industrious, active, managing, unselfish, quiet, sensible, not given to love affairs.
Height . . .	5 ft. 4 in.	5 ft. 7½ in.
Weight . . .	7 st.	8 st. 7 lbs.
Complexion . .	Inclining to blonde.	Inclining to brunette.
Anæmia . . .	Very marked.	Not marked.
Pulse	Variable, low tension, often very hurried.	Variable, low tension, often very slow, and sometimes intermittent.
Femininity . .	Very feminine in appearance and manner.	Insufficiently feminine.
Age on first admission to asylum .	26.	35.
Duration at present date	Over 7 years.	Nearly 4 years.
Form of Insanity	Chronic mania, with acute exacerbations, of gradual onset, and of motor type.	Chronic mania, with acute exacerbations, of sudden onset, and of sensory type.
Result of thyroid treatment . . .	Marked improvement.	Some improvement.
Prognosis . . .	Good.	Doubtful.

An obvious generality immediately suggests itself as an explanation of the difference in curability of these two cases: Miss Seven's is an anæmic insanity, Miss Eight's is not. We may admit the value of that suggestion, but it does not explain everything. Anæmia may help to bring on insanity, but it does not account for it. A very minute proportion of anæmic girls become insane, and, of those who do, the anæmia is, in some sense, part of a general trophic defect. Miss Seven is of an insane diathesis still, though the anæmia is not now conspicuous. So is Miss Eight, and what is the difference in diathesis of the two?

The distinction which is drawn in the above table between motor and sensory mania is, in my opinion, one of great importance. It is a distinction which has hitherto received very little attention; but it deserves a great deal. As Bevan Lewis said, mania, as contrasted with melancholia, is characterised by a predominence of object consciousness. It would be factious to quarrel with his terms. They are sufficiently descriptive so far as they go. In typical melancholia, "subject consciousness" is marked. That is, the attention is inward. The mind dwells upon its own state. In mania the attention is outward. The mind appears to dwell—and here is the point—upon, either outward objects, or upon movements. In other words, there are two great directions which the outward attention may have. The mind may dwell largely upon perception of sights, and sounds, and other sensations. Or it may dwell upon movements. The attention may be, in a sense, outward, but attending to the impressive side; or it may be outward, but attending to the expressive side. I do not see that I

can make the distinction clearer than by a contrast, in tabular form, of the conduct of Miss Seven and of Miss Eight.

	Miss Seven.	Miss Eight.
Visual function .	Not very active. She notices little.	Very active. She notices much.
Auditory function.	Not very active. She hardly listens at all. She never hears hallucinations.	Excessively active. She listens a great deal. She hears hallucinations.
Olfactory function	Not very active. She does not seem to attend to smells at all.	Fairly active. She not infrequently refers to the smell of something.
Skin sensations, and sense of pain . .	Inactive. She almost never refers to sensations on the skin surface. Sensation of pain from inflammatory conditions disregarded.	Fairly active. She notices skin sensations, and refers to them.
Visceral sensations	Ignored apparently.	She attends to "feelings in her inside."
General face muscles . .	Very mobile.	Still. She wears an expression of attention for appreciable moments.
Vocal and tongue and lip movements . .	Very active; almost incessant. Talks rapidly and much. Rarely screams. Sings a good deal.	Rare. At times active for short intervals. Screams not infrequently. Rarely sings.
Upper limb movements . .	Slight. What there are are fine—picking, teezing, etc.	Slight. What there are are grand — throwing arms about, striking, struggling.
Head and neck movements .	Changes pose of head a great deal.	Changes pose of head slightly.
Trunk movements	Comparatively still. Rarely wriggles, or rolls about, or turns somersaults.	Comparatively active. Wriggles, rolls about, turns somersaults.
Lower limb movements. . .	Comparatively still. Walks and runs very little and rarely kicks.	Comparatively active. Walks and runs a lot. Often kicks.

To summarise, Miss Seven does not greatly attend to sensations or perceptions; Miss Eight does. On the other hand, Miss Seven attends greatly to word-production and other fine movements; Miss Eight does not. Miss Eight's muscular activities chiefly take the form of grand movements—shouting, screaming, throwing arms about, striking, running, leaping, turning somersaults—which may be taken as less purposefully expressive. These grand movements are of comparatively infrequent occurrence (except walking, which is induced), they are sudden and impulsive, and probably are a spasmodic expression of pent-up discomfort.

This distinction then explains the real reason why I have chosen to dwell so much upon the contrast of these two cases. Miss Seven's is the more usual type of mania. Miss Eight's, the sensory type, is more

rare and it is more grave. In her case it is of a more or less angry type withal. Sometimes sensory mania is pleasant, but not in her case. Her hallucinations are mostly of a disturbing nature, and her perception of real sensations is often unpleasantly distorted.

Hallucinations of a pronounced kind are not invariable in sensory mania, but paraesthesias probably are. Even taking the milder type, I am assured that it is of graver import than a mania which is conspicuously motor. Sensation is a more vital cerebral function. It is primary in history and in fact. It is the source of cerebral activity *(see Foster)*. Its mechanisms, therefore, are, generally speaking, more deeply organised and more stable. Consequently an insanity which invades them is serious.

We have here then two cases, in one of which the disorder (secondary or primary), was confined chiefly to mechanisms whose function is expressive, and, in the other, to mechanisms whose function is impressive. Did a fatal termination occur in both cases at this moment, the pathological changes would be found to have invaded different groups and different kinds of cell structures.

From the point of view of therapeutics, we must revert once more to Jackson's distinction between primary and secondary symptoms. In both cases there is a negative lesion whose primary symptom is an abeyance of inhibitory functions. The cure, in both cases, may be the same. Any drug, or a special environment, which restores these inhibitory functions in one case may be expected to have a similar effect on the other. But in both cases, also, there is a positive lesion whose symptoms are excesses of functions. In Miss Seven's case these symptoms are almost purely secondary—a logorrhea, which is an excess of activity in uninhibited mechanisms, induced by reflex irritation from visceral changes. In Miss Eight's case, however, the positive symptoms are certainly not purely secondary. The excessive sensory attention, the paræsthesias, the hallucinations, are due to disturbances of function which are caused by actual lesions in the nerve-mechanisms of common sensation, special, and visceral sensation. Therapeutically considered, Miss Seven's secondary or positive symptoms may be cured by some means which, however, may do nothing to cure Miss Eight's perverted sensations.

The other point of difference which may be regarded as important is the difference in age between the two women. But, as I said, the peculiarity of constitution which determines insanity is not peculiar to any particular age in the individual. Age is only a time when the potency becomes an actuality. Had Miss Eight been subjected, during adolesence, to a sufficiently exciting cause, her insanity would have become obvious then. Supposing that had occurred, I think it probable that her mania would still have been of a sensory type. Though the two cases had occurred at precisely the same age, there would still have been a fundamental difference. Miss Eight has some lesion in sensory mechanisms which Miss Seven has not (except towards ovaries); Miss Seven has some lesion in motor mechanisms which Miss Eight has not. The sensory type is nearer melancholia, in that it inclines more towards subject-consciousness, towards self-feeling.

To this already long digression I would add another important consideration, suggested by the contrast of these two cases. They exemplify severally the two kinds of causes of all insanities. These

are Depletory or Nutritional (as by Miss Seven's anæmia) and Irritative (as by Miss Eight's excess of sensory stimuli). The former class of causes induce some form of *starvation* of mechanisms, the latter class excite some excessive *disturbance* of them. All the causes of insanity can be regarded as in one or other of these categories. This will be found a useful idea, as, for example, in a stubborn case, when one must enquire into all possible factors which may be at work in aggravating the illness. In such a case one can go over every system and enquire whether there is anything in it that either starves or disturbs the brain. My impression is that we have not sufficient regard for the irritative factors in etiology—that, for example, when we examine the blood and find no evidence of anæmia, we are apt to forget that it may contain toxic elements. A heart may not be defective as regards the blood-tension which it achieves, but its rhythm may be so impaired as to disturb the attention. From the digestive system starvation may be produced by defective absorption and assimilation, but, probably with greater effect, toxic products may be manufactured in the bowel and absorbed into the blood. But especially in the nervous system is it suggestive to conceive of causes which occasion some form of deprivation of proper stimuli and again of others which give rise to an excess, perhaps a storm, of excitation. Failure of any of the special senses is an important factor in etiology, so also is aphasia or any other great disability in expression, and perhaps melancholia is sometimes determined by a deprivation of systemic sensations, especially by a loss of sub-conscious visceral currents. But the irritations from sensations are probably more important, even if they do not amount to pain or even discomfort. Cardiac disease, gastro-intestinal irritation, and pelvic mischief are fruitful sources of nervous disturbance, and, especially in youth, such excesses of activity in specialised nervous mechanisms probably account for mental distress and loss of balance in contrast with the deprivations of senility.

Mrs NINE, Aet, 47; Duration, 1 Year; Recovery, 6 Years' after Admission.

Chronic, destructive maniac, with delusions of exalted rank and of resentment. Recovery under very moral treatment by nurses, after mania of seven years' duration.

Lapsed Cases and Lost Recoveries.

Dr Robertson made a useful point when he discriminated between angry and hilarious mania. (*Journal of Mental Science*, July, 1890.) Mrs Nine's was certainly of the angry form, and I am going to give her character without mincing

matters, so that the critic may not be able to say that this was a superficial case.

Mrs Nine never smiled except when reviewing the mischief she had wrought, but only scowled. She never sang or shouted unless in glee over the discomfiture of her supposed enemies. She never talked except to demand something or to curse. She never danced or threw her hands in the air in delight; but she very often kicked, and bit, and scratched. These are some of the signs of an angry mania.

She had been six and a-half years insane when special treatment was begun. She had been more than five years in Mavisbank. Her mental state was as follows: She slept in a room by herself, because it was thought dangerous to allow anyone to sleep with her. On her way to her room she had kicked down nearly all the plaster that would fall, and had destroyed as much paint as would, with ordinary pains, come off. When she rose in the morning she began the day with curses on the universe, which you could hear thirty yards off. She dressed herself cursing, and came down stairs furious, cursing as she came, and kicking down plaster and paint from the walls. She breakfasted without taking the slightest notice of anyone, but she had learned that she could not have breakfast unless she kept the peace, and so she did not curse during meals, unless she was interrupted or thwarted. She hurried through every meal, and sought out a corner where there was the least chance of her having to speak to anyone. She was the personification of unsociability. She was allowed to go out in the grounds alone, and she spent a great deal of her time in the open air. She cursed less in the open than indoors. Almost no one dared to address her, her language was so bad. I used sometimes to say "good morning" experimentally, and her reply was invariably in oaths. She was in a constant state of mind of acute resentment and hate. Her passion was ready to express itself at any moment, and apparently without provocation; she destroyed anything that lay to hand. She never tried to destroy people except when it was necessary to interfere with her, and then she bit, and kicked, and scratched, and showered blows upon the nurses with her fists. Human intercourse was poison to her. She hated it, cursed it, and violently repelled it. There was not a creature in the house with whom she had any friendly relations.

This was the kind of patient whom a new nurse set out, under a few directions from me, to cure. There were no signs of bodily illness, nothing in the nature of nervous symptoms of gross lesions or affections of subordinate realms. Her insanity was, so far as we could judge, a pure localised state of mental irritability and delusion. I confess that I had not the slightest hope of making the woman fit for life outside, but I was very anxious to stop her extravagant destructiveness, for she was costing the house a small ransom in repairs. The method adopted was the ignorant suggestion of an inexperienced nurse.

This was at the time when we were changing our staff of nurses, taking on ladies as probationers instead of the old class a little above the domestic servant. To the new probationers sin was just sin of course; they had not learned that it was cerebral disease, and I never took pains to teach them its pathology. So they were very much distressed at Mrs Nine's language, one of them in particular telling me with tears in her eyes how dreadfully she had been sworn at. The prospect that she would get used to it, and that it was one of the obvious reasons for Mrs Nine's detention, did not satisfy the neophyte. Having learned, apparently with some surprise, that we had no objections to the civilisation of the lady, the nurse formed a conspiracy among her companions to propitiate Mrs Nine. I gave very few hints. I told them not to experiment in the house, but only in the open air at first, for the patient was very much more irritable indoors.

The treatment was entirely empirical; we could not have foretold its value, nor could we have decided rationally that it was to be preferred to a method similar to that which we adopted in Mr Three's case. Why not coerce Mrs Nine into peaceable ways? One reason against that course was that it would have required a very strong staff of nurses to do so; but there were other, more scientific, objections, which we can explain now after the result. There was this difference between the two cases, that Mr Three's was a case of a want, Mrs Nine's was a case of an excess of energy. Three demonstrated a disability of the social function in that he could not realise various feelings proper to a civil person. Mrs Nine's was a positive lesion in that she realised in excess feelings improper to a civil person. In Three's case we afforded grounds for

right conduct to supply what his nature lacked. In Mrs Nine's case we afforded grounds for arresting the conduct which she exhibited to excess. In other words, we supplied some basis of inhibition in the lady's case by the method of diversion. Inhibition, in spite of all that has been surmised about it, is primarily, in my opinion, the physiological name for the fact that you do not readily do more than one thing at a time. If you are smelling flowers you are not cursing. If you are eating cake you are not kicking down plaster. And if that is the primary fact about what we call inhibition it would be better to call it abeyance as some have done.

The nurse's attempts then were, unconsciously and without our formulating it, to re-establish the higher relations by diverting or thwarting disorders of the lower. She approached Mrs Nine in the grounds with a bouquet of choice flowers, and was forthwith dismissed with the usual bad language. But she had been told not to appear to have any personal feelings in the matter, not to show that she felt hurt by repulses, or that she had anything to gain by being well received. So she returned to the attack again and again, and discovered that, though the lady refused the flowers when offered to her, she deigned to pick them up if they were left near her. So they became a frequent offering, which was not refused, though no acknowledgment was made to the giver. Similarly, sweets and the good things of the larder were put in Mrs Nine's way, and were in similar silence greedily appropriated. Then this became more and more the rule of the house. All the nurses strove to please her, to find out what she wanted and to put it within her reach, to make it easy for the quondam scold not to ask for anything, but to find it as she liked it. Still there was nothing like a friendship spoken between nurses and patient; but at the same time much less hostility was expressed. By degrees the relation became more and more intimate. Mrs Nine allowed the nurses to attend more nearly upon her person—to help her to don her cloak and bonnet, to lace her boots for her (she was very stout), and to do other things which came more near to a relation of friendliness.

All this kind of thing, be it observed, fitted with Mrs Nine's delusions, which were delusions of grandeur, and—the common association—delusions of resentment. It is

on that account again that we could not have said that the treatment would have a good effect of a permanent kind. The accepted treatment of delusions is to, as far as possible, ignore them, and sometimes to judiciously oppose them. To pander to a delusion, as we were now doing, is, as a rule, to strengthen its hold on the patient's mind. And here we may interpolate a little piece of the psychology of the difference between a hilarious and an angry mania. It is the old vexed question as to whether anger is a pleasure or a pain. To decide that, you must discriminate between different stages of anger. The early stages are certainly a pain—the stage of resentment and of suppressed rebellion. To nurse your wrath is to be in pain over it. But the nearer you get to an expression of anger, the more pleasure enters into its content. So, to swear, to strike, to kick, give a modified pleasure. There is often, however, a more appropriate expression than simple expletive, and the more appropriate your expression of your anger becomes the more pleasure do you have in it. In Mrs Nine's case, the appropriate thing was for her to insist upon the rights and privileges which properly attach to her supposed exalted rank. Formerly her insistance took the form of kicking and cursing. Now it was possible for her to receive the homage due to her, and she kept herself busy in that and found pleasure in it. With the altered conditions—control having given place to service—her mode of conduct changed. She became now a hilarious maniac instead of an angry—not that she shouted or danced or laughed aloud; but she went about the house pleased and quietly smiling.

The next stage was comparatively simple. We had now to deal with a patient who was no longer averse to everybody, but with one who had become amenable to social influences and kindnesses. In a very short time Mrs Nine spoke to us all politely if not volubly, walked with other patients, and entered into the general life of the place. Here again diversion of her delusional attention and the rehabilitation of the higher functions came in. Instead of simply sitting still at the receipt of homage, she began to learn useful work again. She had been a great sempstress in her sane days, and it soon became difficult for the nurses to keep her in work. Like many of these hard swearers in asylums she had also been a good and pious woman; and now she began to have something like a moral nature. She

went to church and enjoyed the services and spoke about them. She did all sorts of little good things about the house, taking much of the work of cleaning and dusting off the nurses' hands. She walked out to assist nurses in charge of unruly cases, and sat for hours at the bedside of sick patients. Finally, she requested that her services be retained as nurse. She insisted that she never would have got well if we had not had "lady" nurses, though she admitted that the former staff had been quite good and kind; and she wished to end her days in the kind of work which had saved her. Such an arrangement we could not wisely make, for she was easily upset by a violent patient for instance, and was not active enough to take charge of dangerous cases. So we came to the conclusion that she would be better at home, both on her own account and on ours. She has been there for nearly four years—a recovery after seven years of mania—and we hear from her that she is well and happy.

For such an unexpected recovery we are entitled to very little credit, and do not pretend to more than the nurses deserve who first conceived of Mrs Nine as an immoral person—a woman to be reclaimed from a chronic anger. The obvious criticism is that the nurses in the case showed much tact, and that was all. It is quite enough.

Probably there are a few other cases in the house whom we regard as chronic and incurable, who, if we knew how to take them, might be reclaimed. The next case to be recorded is a case in point. I shall be disappointed if we do not succeed in recovering her. So is Mr Twelve's. But in his case we have again to take account of a more sensory form of mania, indicative of a graver lesion.

In all big asylums there are a good many such lapsed cases. I trust that the physicians in charge will not be hurt at my saying so. But it is extremely easy to become accustomed to a case, and, having failed to recover it by ordinary methods, to miss the special treatment which is appropriate and would be effective. If I may put in writing the lesson which this case of Mrs Nine taught me, I would say that we must, now and again and again, climb down from the scientific pedestal and regard our patients with a more ordinary mind. We meet such a case as Mrs Nine in a ward, and we say to each other—"Chronic mania; seven years' duration; destructive too; must cost the house a lot of money. These persistent delusions of exalted rank and of resentment are bad." The observation of a simple-minded nurse is—"What appaling language that woman uses; she must be very angry about something." We are apt to classify a patient, and, having given him a bad name, to stop thinking about him. This very question of the difficulty of cure of hallucinational patients illustrates how easily one forgets to be enterprising in treatment, how hard it is to regard the insane, as they used to be regarded, as human beings

whose souls are being distracted by evil spirits. Substitute spider cells for evil spirits, but still regard the patient as a human being infested by malign parasites, and you come near to discovering a more hopeful, or at least a more personal, relation towards him.

We have a patient at Mavisbank who has been insane for many years. He still is not obviously demented But he is persecuted by a conspiracy of evil spirits whom he calls Thugs; he hears them speak; he feels them near; he sees the signs of their presence on the hills, on the house, in the trees, in the sky. We call him hopeless. Everyone does. But I am not at all convinced that an elaborate sensory treatment would not suppress his hallucinations and the delusions which he has invented to explain them. Every sensory avenue in his system seems to bring him false information. But, in his case and in hundreds like him, these same nerve mechanisms can at other times serve him quite accurately. Similarly, his mechanisms of judgment which betray him daily into such egregious foolishness about Thugs can, on other subjects, serve him well enough to allow of his thinking quite clearly and deciding quite wisely. So long as that is so—so long as positive symptoms prevail, without a general failure of mental power—we have no right to regard the insanity as hopeless. The case to which I refer is comparable to that of a man who has for years allowed his mind to dwell in the fascination of some attractive ideas, who has seen visions and dreamt dreams, and all whose life has been a service and an enjoyment of his passion. But one day he is converted, and there is an end to it all. And there is a conversion which would come to many of our cases did we wrestle with them as the evangelical wrestles with his sinner.

We shall be told that our figure has the usual fallacies of analogy, and that the comparison is quite misleading. The fascinated idealist is possessed, in one sense; his attention is chained to one train of thought. The delusionist, with his hallucinations, is comparable up to a certain point. But, so far, we have forgotten to observe that, in his case, the fascination—the limitation of the attention—has a pathological basis. His brain is riddled with morbid products. The processes of his nerve cells are truncated, the cell-bodies are full of pigment, the fibres are crushed by connective tissue overgrowth; and these spider cells, which so appeal to our imagination, have multiplied like sand-hoppers. You cannot expect a man to think clearly and to behave prudently when he has a brain like cocoa-nut matting. No, you cannot, but all the same, he does. For a brief moment—when he is planning an escape, when he is stopping a hard cut or making one, when he is laying a short guard, when he is planing a table, or planting a tree—the man's attention is all on the sane subject, his mind is as quick, his nerve as steady, as those of the majority of us.

The pathological products, then, have done their worst, and what does it amount to? Neither more nor less than this, that the patient cannot devote his attention consecutively to sane subjects; he finds himself interrupted. He thinks of something sane, and speaks of it; but, before he has gone on to the next step in the expression of it, a recurrent evil feeling claims his attention—a voice, a vision, an idea. And so he is distracted. But, be it observed, that the effect is not so much in the nature of a disability as of a perversion. As Hughlings Jackson has pointed out, the nerves may be said to be doing their work

well. When he is feeling the bad feeling, or perceiving the hallucination, or thinking out the delusion, he is doing these things quite well. It is not that his nerves are incapable of good work, but that they work too much at the wrong things. And, for my part, I refuse to believe that any case whatsoever is incurable whose only insanity is that the mind attends to wrong things.

I may seem to be thinking only of delusional cases, in this argument, because I happen to have referred to a delusional case at Mavisbank by way of illustration. But the argument holds good of other cases also—chronic maniacs, chronic melancholics—provided only that there is no dementia, that is, no paralysis of mental power in the sense of an incapacity for feeling, for thought, and for expression.

What, then, is the explanation of our failure to cure? To be quite honest, it is either that we cannot or do not think out our cases carefully enough, or that we are not sufficiently enterprising. Either we must sit down and ponder the case until the way out suggests itself; or, if we cannot do that, we should try anything and everything short of violence and poison with as reasonable a direction of the experiments as we can command. Meanwhile, if anyone is sceptical, let him go to every big asylum and write a record of cases which have recovered after not less than six years' illness. There are a score of such recoveries every year. Let the recorder discover to us the particular nature of the cases, and the minutiæ of their way out of their insanity. Such a record would be a convincing document. For it is certain that, at the present moment, we greatly underrate the plasticity and the recuperation of the human brain, and, therefore, its curability in disease.

MRS TEN, AET, 31; DURATION, 3 MONTHS; RECOVERY, 16 MONTHS AFTER ADMISSION.

A case of melancholia, following a confinement. A history of masturbation and a bad conscience during pregnancy. Insanity precipitated by a shock.
Almost complete recovery. Premature death.

Moral factors in Insanity.

Mrs Ten came of a healthy well-to-do family in the West of Scotland, but in her generation she was not the only insane member. A brother was in an asylum all the time that she was at Mavisbank, and his insanity was of the imbecile form. She was an anxious woman, full of thought for her household, of dark and sallow complexion, but of apparently good physique.

Some months before admission, a child was born, but before her confinement she had begun to be insane, though not in an impressive form. Her distress dated from a day when, going into the garden where some men were at work, she witnessed one of them in an epileptic fit. That impressed her with so great a shock that for days and nights she could not efface the picture. Three months before she came to us she was sent into Glasgow, where she was treated with great care for both bodily and mental symptoms. Her digestive system was the most affected. Her tongue was raw and fissured, her appetite was poor, she was greatly constipated. Bitter tonics, cascara, careful and liberal dieting, led to marked improvement in these symptoms. Mentally, she was depressed and perverse, refusing often to carry out the doctor's orders or to allow them to be carried out. She was sleeping very badly, she masturbated persistently, she wept a great deal, and was convinced that her family was in ruin and that she herself was a lost soul. Chlorobrom was at first tried for the want of sleep, but paraldehyde was found to answer better. She was given open-air exercise for three hours every morning and for two hours in the afternoon. She was very carefully watched, and electricity, in constant current, was administered to her once or twice daily by her doctor. After six or seven weeks she had greatly improved; then she began unaccountably to stand still and then to go back.

The cause of this relapse, as judged by the doctor in Glasgow, came to be of obvious importance in the case. Domestic and conjugal troubles were at the bottom of the mischief. This had, in part, a real basis in circumstance, but the facts assumed much too great an importance in the mind of the patient, because of her mental state. Mrs Ten and her husband had always been on good terms, but he was a man full of business, she a housewife from first to last. She had no interests outside of her family. During her pregnancy, as very many women do, she began to fancy that her husband was ceasing to be fond of her, and her ill health, from disturbances of digestion, prevented her dismissing the idea summarily. During that time, also, she contracted or resumed the habit of masturbation. She was inclined thereto by the state of her pelvic organs, in which, as it transpired later, there were abnormal changes going on in addition to the pregnancy. And so, towards

the end of pregnancy, it grew upon her that her husband and her children were not the same to her, and, with that delusion, the conviction that she deserved the worst. She had forfeited, as she thought, the rights of a mother and of a wife. When she went to Glasgow, absence from husband and children had a salutary effect. She received kind messages from them and she did not see them, so could not observe signs to be misinterpreted as evidence of their lost affection. Unfortunately, a servant who turned out to be a bad character took her place as housekeeper. It was when the patient learned the character of this woman, and knew that she was acting as mother to her children, and waiting upon her husband's needs, that she relapsed. Later, when in most cases visits from the husband might be prescribed as useful to the patient, we found that the effect was often contrary. She became excited in anticipation, and, I suppose, in fanciful suspense as to what would be the nature of her reception, and during his visits she pestered him with questions designed to elicit news of the misfortunes which she supposed might be occurring at home. Though I never saw or heard anything which led me to diagnose unkindness on his part, the husband, not used to melancholic delusions, fretted under his wife's complaints and fears, and his visits had to be carefully watched.

On admission, Mrs Ten was in a state of acute excited or agitated melancholia. That is, she was deeply depressed, so that she could not attend to outward things; and her depression found constant though irrevelant expression, namely in wringing of her hands, moaning and grimacing. She was put immediately upon the open-air treatment and special diet; and a tonic was given her which was practically the same as her Glasgow physician used in the case. That was a mixture containing sulphuric acid, gentian, and liquor strychninæ. The mistake, as I now think it, was that we did not give her sufficient rest. She was certainly a case of exhaustion, and therefore one for carefully administered rest. I say carefully administered, because a melancholic is apt to brood if left to unoccupied rest in bed. But if I got a similar case again, I should treat her on the bath-chair method. That is a method which is not sufficiently appreciated. It combines a saving of the muscular energies which such cases need with the sensory activity which is a

direct tonic to a nervous system in the stage of fatigue. In other words, we thereby allow the patient to recline while she is bathed in sunshine (if there is any), is played upon by the breezes, and sees the trees and the sky, hears the birds, and all the sounds which carry energy to the central mechanisms.

On the treatment which was first adopted, there was no material improvement, though there was no notable relapse. The patient was now less agitated but not less insane. She was almost constantly depressed, had all sorts of delusions of disaster, slept irregularly, bolted mouthfuls of food if allowed, spat a great deal, tore her hair out, had a mania for undressing, was indecent in private conversation, and grossly careless of personal cleanliness. At the end of three months a new regime was enjoined. Mrs Ten was kept in bed in the morning for massage, and put to bed earlier at night again for the same purpose. The nurses were instructed to see that her hands were outside the coverlet, so that masturbation was minimised. During her hours afoot she was taken for a brisk walk twice daily; and while upstairs she was made to occupy herself in manual work. This is a most important method of diverting energy into sane channels. Mrs Ten was encouraged to play the piano, she was given a certain amount of floor polishing to do, and, I am amused to find, there is an entry in the chart of the date to the effect that the patient was to practise "fish ponds" daily. Fish-ponds is a game in which the players use hooks to hook little blocks of wood which have an eye of wire on their tops. The idea was to divert Mrs Ten by fine movements as well as by large, and to encourage outward or objective attention of an amusing kind. This regime is entered in the chart as "Special Treatment," and it was put in force on the third October. It was a failure, and was suspended after four weeks' trial.

At this date, in the beginning of November, the patient was complaining of pain in the back, and of some other subjective symptoms, which the nurse interpreted as indicating impending menstruation. Her menses, which had been too frequent until the relapse which had occurred four weeks previous to admission, had not returned. Accordingly we prescribed hot sitz baths at night with vaginal douches, and were pleased when, four weeks later, the menstrual function was properly established. The subjective symptoms

referred to were, as I take it, signs of spurious menstruation. It would be rash to explain what that may mean, but in some sense, I have no doubt the menses were imminent when the patient felt the bearing-down pain and the pelvic disturbance.

Our next attempt was by digitalis and ergot, and, a month latter, by iron and aloes. We had begun to suppose, by this time, that there was some important pelvic disturbance in the case, and we were anxious to keep the bowels freely open and, if possible, to maintain menstrual regularity. Mr Ten was very anxious that we should make an examination of the pelvic organs, and thought there was some pathological condition for which an operation might be required. But, in consultation with a specialist, we determined that there were no symptoms sufficiently prominent to warrant the procedure, and the idea was abandoned.

During this period, however, there were not wanting signs that some improvement was coming. They were extremely scanty, and the nurses in charge of the case were more than sceptical about them. Although the patient's depression was still very deep, it became very obvious that what was to be called the lucid intervals were more frequent than formerly, and I was sanguine enough to predict recovery.

In March, 1896, we began a new regime which was expressly devised to assist the expected convalescence. A complete time-table was issued, of which the following is a verbatim copy :—

7.30 a.m.—Bath, temperature 60 degrees, or tepid if long bath required ; brisk towelling for five to ten minutes.

8.30.—Porridge, if inclined ; two small cups or one large coffee (half-boiled milk) ; fish or two eggs (boiled, scrambled, or poached).

9.—Rest, with hands above coverlet. Sewing, if possible.

10.—Floor polishing or other massive exercise, to be done gently and with persistent direction of the patient's attention to the work.

11.—Lunch—half-tumbler milk, one egg switched, table spoonful whisky, with biscuit. Take her downstairs and have her read to by a nurse other than her constant nurse.

12.—Brisk walk if sunny weather or dry ; otherwise, calisthenics.

1.30.—Light dinner—soup, pudding, bread, small quantity vegetables, fish, but no meat. Rest one hour after dinner.

3.—Light exercise same as at 12.

4.30.—Put to bed after meal same as at 11. Massage with simple rubbing and kneading, in which patient should be encouraged to assist; this to be done very slowly. Be careful of exposure and chill. Rest for an hour. Reading by another nurse, or sewing if reading is not attended to.

7.—Evening meal—coffee or cocoa made as before, bread and butter, fish or white meat.

8.—Pin brush all over (brush to be cleaned in soda and boracic after use), or friction with skin gloves. Electrical stimulation of skin. Large rectal injection of warm water (soap only if necessary), after which, if possible, lay on back and move gently to and fro. When patient at stool, have feet in ice cold water. Put to bed and rub feet very briskly with rough towel or gloves.

9 to 9.30.—Tumbler hot water as hot as can be taken comfortably. Thereafter quiet and dark room.

The pin brush was simply a hair brush with flexible metallic hairs in a spring bed. The nurse brushed Mrs Ten gently with it all over her body. It is in effect a mild systematic scratching of the whole skin. The electrical treatment was applied in the constant current and not to the head. In Glasgow it had been applied only to the head and neck; we wished only to get its superficial effect, and used mild currents all over the skin surface. If we are right in considering that the chief source of energy for the highest cerebral mechanisms is in the sense organs, we do not utilise the skin sufficiently in its sensory function. In this case we tried to do so. The patient heard plenty, saw plenty, tasted and smelled enough; but there was very little provision for skin sensations without the massage, the pin brush, and the constant current.

I do not wish to attribute too much importance to this regime, because, as has been said, the patient was showing signs of improvement when it was instituted. It was begun in the second week in February, when the patient had lost weight and seemed about to regain it. It was carried on intermittently for many weeks. Generally we stopped it during menstruation, as at these times the patient still showed a perverted desire for sexual stimuli. By the month of June her convalescence was all but assured, though there were any number of short relapses.

There are still some interesting points in Mrs Ten's case.

Her weight was very constant, at about 8 stone from July, 1895, to January, 1896. In the end of the latter month it began to pick up, and there was no going back, but rather improvement until November of the same year, when she registered 10 stone. In the chart-records of her mental state, there is a line which was never touched. The top line, "cheerful," was never reached. Even at the last when the patient was well enough to go home she could not truthfully be described as cheerful. She still had regrets, and was anxious about many things; and we could not say that these feelings were delusional.

It is unfortunate that we must record a sad end to this case after all. In November, '96, she was as well as we could make her, and showed no signs of doing better. She was really, as well as technically, recovered, if a brunette of melancholy temperament can be said to be well. Her sadness was as ingrained as the pigmentation in her skin. At home she began to be busy as before, but she did not seem to have good health. She still had uncomfortable pelvic sensations, and trouble during menstruation. A specialist was consulted, ovarian disease was diagnosed, and an operation was decided upon. The operation confirmed the diagnosis, for advanced disease was found, though without any large tumour. Unfortunately, the patient did not recover from the effects of the operation.

As a further postscript, I would like to point out the importance of the "mental content" in this case, and of Mrs Ten's personal relations—especially with her husband. I shall not venture in this instance to appreciate values, but here is a statement of fact :—

A young woman, good-looking, a pleasant companion, and a good manager, marries a man who is strong and energetic, and clever. Their ideal is domestic, their relation is not by any means platonic. During a pregnancy the wife attends persistently to feelings which are calculated to estrange her from her husband, and he is not greatly averse to the process of estrangement. Then come bodily weakness, ill-nourishment, confinement, a shock, and insanity. During the insanity the conscience of the wife is not dead. She "remembers her sins" and is afraid; she looks for signs of disaffection in her husband, and finds them. Every time he comes to see her, she exerts herself to discover how far she has been ousted from the position

she once enjoyed, and daily, when he is gone, she examines herself to discover the extent of her unworthiness for it. Is it not possible that such a state of consciousness may persist even after the best nutritive conditions have been restored? Is it not an essential part of treatment that, having restored the nutritive conditions, one should try to deal effectively with these persistent moral factors in the case?

Mr ELEVEN, Aet, 58; Duration, 2 Months; Suicide.

Climacteric, suicidal, melancholic. An alcoholic case, with delusions of disaster, a weak heart, and a fatal (suicidal) termination.

Asylum Accidents.

Roderick Eleven was in many respects a typical West Country Highlander—big-boned, thin, hairy, black as peat, and as superstitious as a girl. He came of a Western Island stock, which had not had its proper intermixture of fresh blood, and more than one or two of his friends would have been in the asylum if they had not been reticent, secretive folks. Roderick had the fortune to come nearer to civilisation and to asylums than most of his friends, and his brain was not built to stand civilised ways. He was an ambitious man, and one whose ambitions often turned him aside from what he thought his duty; so that he carried about with him a heavily weighted conscience. On the top of his worry and his remorse he poured through his brain much more whisky than brains thrive in, and then he took to melancholy.

There was one kind of transaction which troubled Roderick's soul always, sane or insane, drunk or sober. Never mind what it was; let us say it was smuggling. His minister had spoken often about the sin of it, and Roderick was going to give it up just as soon as he thought he had earned enough money by it, and not too much damnation. But the risk he ran kept him awake at night, and he pondered a great deal over his future chances. Finally, a

revivalist preacher came to his village, and Roderick went to hear him. His minister had told the preacher about him, and the preacher had a "special message for him." The text was, "If thy right eye offend thee, pluck it out," and the preacher dwelt upon the consequences of sinning against the spirit. Then he mentioned the illicit trade in particular, and he had his eye fixed on Roderick, when he said that the man who did such things, knowing the wickedness of them, would repent in hell. These statements occasioned much anxiety in Roderick's mind.

As a refuge from his conscience, Roderick took to drink, and drank very hard for some months even for a Highlander. He had never been an abstemious man, but now he passed all bounds. His wife grew anxious for his health, and sent for the doctor to minister to his body and mind. Roderick was depressed and fanciful, expecting evil, and too ashamed and too listless to go about his business. So he lay in bed through the day and went out at night when nobody could see him. The more he thought about his position the less hope he got, and the doctor could not do very much for him. One thing he did do, which was to put an embargo upon the drink; but Roderick did not follow that prescription very closely. The next stage of Roderick's craze, the next step in the growth of his insanity, was that he began to pity himself and to look for pity from others. He began to talk about his trouble rather than conceal it—especially about the bodily symptoms of it—his sleeplessness, and his indigestion, and his weariness. The folk listened to him well enough at first, but soon they tired of his story. His wife, in particular, thought quite rightly, that if he talked and lay in bed less and bestirred himself more he would quite likely stand a better chance of good. Roderick thought that opinion not kindly. So he drifted on for a week or two and, as melancholics will, he began to find a concrete reason for his bad spirits. He forgot about the drink and the conscience, but he could not get away from the sadness; and he began to invent a delusive account of it. The gist of the matter was that he was a ruined man, which was very plain to anybody who had a sense to see it. His business, he thought, was ruined, and he was expecting to face the bankruptcy court; his wife and family were tired of him and had no use for him; his health was irretrievably shattered; his chances beyond the grave were worse than

dismal. Still, people did not pay enough attention, so he attracted notice in a melodramatic and effective way. It was broad daylight, there were people about, the water was shallow; but he would show that he was in earnest. So he walked into the sea up to his middle, and further, until the people fished him out and put him to bed. Still he was no better, and the folk were not very deeply impressed; so he swallowed enough turpentine to give him bad pains inside, and to cause him to see things green and yellow next morning. Then the doctor was sent for again, and wisely judged that Roderick might carry his melodramatics too far one of these days, and sent him to Mavisbank.

His appearance was very suggestive, for he was a tall gaunt fellow, and the sallow-grey complexion and downcast look added to the cadaverous and insane appearance of the man. But we found nothing in the way of bodily disease to account for his state, except that he had a cardiac lesion of mitral regurgitation. The symptoms were not at all acute, but there was a mitral systolic murmur, not presystolic, we thought; his pulse was of low tension, not full, and irregular in the sense of variable in rhythm; there was nothing like intermittency, and the increase and decrease of the pulse was not greater than one often finds in insane patients whose hearts we believe to be sound; he seemed to be at ease as regards his heart, but he was too much taken up with his melancholy to pay great heed to it; the liver dulness was increased, and his tongue was furred and his breath foul; there was no albuminuria nor any œdema. It may be recorded at this stage that later on he complained once or twice of awaking with a feeling of shortness of breath, and once in the grounds he felt faint and had to sit down.

He was put upon digitalis and ergot, iron, and special diet, which was chiefly a diet of extra custards, milk, beef extract, and other things given between meals to supplement his rather scanty regular food. Though we did not regard him as very determined in his suicidal purpose, we put him under absolute supervision night and day. He slept in a room where a man sat by his bedside all night, and by day he went with one or another attendant who carried what is called a suicidal card. These cards are used in many asylums either for suicidal patients or for those

who are bent on escaping. Whoever holds the card which bears the patient's name is responsible for the safe custody of the patient. The system has many advantages and a few disadvantages, chiefly that attendants are apt to think less of the importance of cases about which they carry no cards, and that they are less inclined to help each other, but leave every man to be watched by his own attendant.

The rest of Roderick's treatment was a somewhat severe discipline for him. In a few days he was back to his old habit of complaining, though he had brightened up considerably on admission. He was in short an inveterate hypochondriac, reminding one very much of some Orcadian patients. He was an instance of hysteria by alcohol in a strong man—for he was fairly strong in spite of his heart—and, as is the way with alcoholic patients, his ailments were not very deep. He complained of want of sleep in spite of the attendant's report to the contrary; he had no appetite, he said, though he ate fairly well, and he was, by his own account, too weak to do any work, however light. We tried very hard to induce him to occupy his mind with things other than his own complaints, and great pains were taken to interest him in work—gardening, carpentry, poultry care—but in vain. He would make a show of work when I came on the scene, but he spent most of his day in idling, or in talking theology with another patient who was similarly interested. This last I put a stop to as soon as I discovered it. It is not advisable to allow too much scope for the religious imagination in asylums. The theology of the last generation, however satisfactory as a logical system, was not conceived as comfortable; it has very little therapeutic in it for a mind harassed by the weight of its persistent sins, and warped in its judgment by a bias of insane fear. So Roderick was not allowed to talk theology.

The next stage of the insanity of this patient was also towards a deeper melancholia. He became worse before he took a turn for the better. He began to refuse his food in earnest, and had to be fed by the spoon; he really went off his sleep; he lost weight and colour, and was very weak. It was at this stage that he had his fainting turn in the grounds. He harboured delusions of fear, such as that his wife was dead, that he was ruined financially, that he was condemned to everlasting torment. Then he made another futile attempt at suicide. He was walking with

his attendant beside the pond, which is purposely kept shallow. Whether he knew or realised that it was shallow I cannot say, but, at all events, he sprang from his attendant's side and plunged into it. It was about twenty minutes before he was got out, as he struggled hard against the attendant. The latter suffered more than Roderick, for he got a very wholesome fright as well as a ducking, and had had a severe struggle in the water. Roderick was not a little bit the worse of the escapade.

Shortly after that a slight improvement occurred. We had made no change in treatment except that, as compensation seemed good, the cardiac tonics were discontinued. It seemed as if our persistence in insisting that he should occupy his mind was having some effect, for he really did a little light work, and began to speak of going home in a more sensible way than formerly. We spoke hopefully about his prospects, always insisting that our way was the only feasible one. So he acquiesced and seemed brighter. Unfortunately, however, he had ups and downs like other people, and in one of his more desponding moods he took us unawares. We had not relaxed our supervision of him at all, and he was still in charge of a special attendant. One morning after breakfast he was sitting in a room along with several other patients, and his attendant was at his side. The man, who was a careful attendant, though inexperienced, was only temporarily in charge, but knew well what to look out for. He remarked that Mr Eleven seemed all right, then his attention was diverted by another patient who spoke to him. Roderick was sitting with his elbows on the table and his head in his hand, and showed no signs of distress. It is quite certain that there was no coughing or spluttering. Attention was first called to him by a patient at the other side of the room, who noticed saliva dripping from his mouth to the table and floor. His head, which was bald, had a rather livid hue, and the attendant who was beside him immediately turned up his face. It was too late. Roderick was dead.

Fortunately the head attendant came into the room just at that moment—a man of large experience and resource. His first impression was that this was an apoplexy; but when he laid his patient on the sofa and investigated his mouth, he discovered a handkerchief tightly rolled and shoved well back over the root of the tongue. Artificial

respiration was immediately begun, and I was sent for. I was fortunately at hand, and arrived promptly. We kept up artificial respiration for forty-five minutes, applied very hot cloths, injected ether, etc., all to no purpose. The air entered and left his lungs freely, but his heart never beat again after the first.

We call that hard lines. The case was not a hopeless one, we had done a great deal for him, after long hesitation he was beginning to improve. Of all the silly attempts he had made at suicide this might have been supposed to be the least likely to succeed. Strangulation and suffocation are very dangerous methods, but who would suppose that a man could suffocate within a few feet of his attendant, and utter no sound of distress? I investigated the case very thoroughly, and there was a sane (alcoholic) patient in the room who would have been glad to give damnatory evidence if any carelessness had existed. I am satisfied that the facts are as stated. Certain it is that Roderick's head remained poised on his hands after he lost consciousness and, so far as we can gather, after he was dead. The slightest nudge from another patient, the smallest grease spot under his elbow, a light push of the table, would have saved that man's life. But luck was against him.

What are we to say too of the fact that he suffocated in silence? I should not care to undergo the experiment, but it does not seem likely that a normal man could have a plug in his throat without some coughing or spluttering. There can be very little doubt, I think, that there was an abnormal insensibility in the case—an insane anæsthesia, such as has often been observed. We are all familiar with the insane phthisical patient who never coughs, the indifference with which melancholics pull out hairs, the insensibility to huge quantities of mustard and pepper, which not only general paralytics in asylums show, the *sang froid* of paranoiacs and melancholics under tooth pulling, to say nothing of the less strange anæsthesia which excited states induce.

So this counts as a death which ought to have been a recovery, and we have spoiled our maiden record as regards suicide. There are some who say that suicide is an unnecessary accident in an asylum, and that it never occurs except through carelessness. Unless by carefulness you mean omniscience, with supernatural energy thrown in, the idea may be dismissed as absurd. As our official report had

it, and as the Commissioners in lunacy agreed, "no blame is attached to anyone for this accident." The only lesson we could learn from the unhappy incident was that we made it a rule that no nurse or attendant of less than four months' experience may be left, for however short a time, in sole charge of a suicidal patient. All the same, Roderick might have died though three head-attendants had been in the room. At least that is likely if our surmise is correct, that his heart failed almost immediately after unconsciousness set in. We returned the death as from cardiac syncope following suffocation.

Mr TWELVE, Aet, 58; Duration, 9 Months; Unrecovered Four Years after Admission.

A case of climacteric melancholia with delusions of persecution. A history of self-indulgence and of sexual vice. Hallucinations of accusation. Partial recovery.

Mr Twelve came of a well known and good family. His family history, however, is not so important as the history of his own life. That may be summed up in the statement that he was a man about town, a club and lie-a-bed man. He had money enough, at least in his later years, to make it unnecessary for him to be active or to be interested in anything more than whist and sexual pleasure. He was an accomplished whist player, and is one of the few who, after a night's whist, can recall what each player held in any one hand and what each did with his cards. He was not a serious gambler. Sexual pleasure was his other interest, and of that he made an art and science. There is no record of any friend to whom he was deeply attached or of any great service to any individual or to the community. No one seems to miss him much now except his mother, who misses him for good and dreads his possible return to her roof, and some unknown people.

Mr Twelve's mode of life was as follows:—He lay in bed in the forenoon, reading light literature, of which he possessed a carefully collected store, and filled his mind with interest-

ing imaginings. He rose in time for lunch, and spent the remainder of the day in lazy amusements. He took no great interest in sport, though he was a mild and a bad golfer. He spent his evenings always in the club, where he was well liked by his associates. He was a pleasant and inobtrusive companion. He did not drink to excess. He went home late at night. His mother found it difficult to keep respectable servants in the house.

At the climacteric, or when it was approaching, Mr Twelve began to be fanciful, and what served for his conscience became aroused to a sense of his follies. He was much occupied with repentance for what he had done, and still more with regrets for what he would no longer be able to do. As is the way with people who have something on their conscience, he imagined that his friends were as interested in his vices as he, and more severe in their condemnation of them. Gradually it dawned on him that he was being avoided, that men spoke to him furtively and as if ashamed or afraid to be seen in his company. He detected inuendoes in the conversation of those who addressed him and of those who made remarks in his hearing. And so he acquired the habit of excusing himself, and took pains to explain to his friends that he was not really a sexual pervert—a subject which his friends thought unnecessary, and found embarrassing.

Suddenly Mr Twelve disappeared from club life and "wandered" himself. He was lost to his friends, to their great astonishment. He was in hiding from the police, who, as a matter of fact, had never known of his existence, much less been on the lookout for him. When he was found, he explained to his confidants that he was wanted on a charge of sodomy—a charge for which, he said, there was not the shadow of a foundation. He had always, he said, avoided such vice. The police in London and in Edinburgh were consulted, and it transpired that the notion of his being wanted by them was a delusion. All the same, Mr Twelve was not satisfied. He still saw that people looked askance at him, that things were said which had a sinister meaning, that much was done and spoken which he was not meant to understand. Sometimes in person, always in feeling, he was in flight from his pursuers—wanted, persecuted, escaping—a most trying feeling to live with.

Finally he was induced to come to Mavisbank as to an

asylum in the classical sense. The sheriff's warrant came with him, and I am sorry to say he has remained. His delusions have changed from time to time, he has been sensible often for days and even weeks, he has improved in health, but nothing that we have been able to do has made him well enough to return to the outside world.

This onset illustrates very well the nemesis of a mode of life which a man persists in and is afraid of. From the fact that a patient's delusions are sexual, it does not always follow that his habits have been very bad. It might easily have occurred to Mr Twelve that cheating at cards was the particular offence for which he was being shunned and shadowed. For, when climacteric nerves take the upper hand of a man, his imagination will find an explanation for his unpleasant feelings, and generally he explains them in connection with some interest which has been an important part of his life. The busy man thinks that he is ruined and disgraced, the religious man thinks that he is damned, the man of medicine thinks that he is being poisoned. But Mr Twelve had come to a time of life when the flickering sense of sex is apt to assert itself before it goes out; also, he had undoubtedly taught his mind to keep close to the sexual groove; most of his thinking had been about sexual pleasure; he had schemed and planned to indulge in it; he had lived for it more than for any other one thing. That is the alienist's ethics of sexual living—that the sexual function is so wrought into the whole fabric of mind that, when a patient begins to regard sexual pleasure as more than an incident, if he works for it, aims at it, denies every other thing for it, it will, more than any other pleasure, demand his whole energy and take evil possession of his whole nature. It is idle to explain away Mr Twelve's delusion as a common incident of climacteric insanity. It was much more. It was the pathological sequence, and a necessary one, of a life-long pursuit which had been almost a monomania.

After his admission, Mr Twelve talked a great deal of sense. He was prepared to doubt his delusions, and would discuss their improbability freely; but he has never learned to throw them off entirely, or at least has always found substitutes for them. At a later period, he had given up the notion that the police wanted him, but still believed that he had been followed earlier in the year. Still later, he seemed to have given up the idea entirely; he did not

speak of the police, and we did not revive his memory on the subject. But he was convinced now that he had been brought to Mavisbank for wrong purposes; he refused to think himself ill, or to believe that he was being treated, and he refused to take medicine as he thought it was poison. Later, he believed that I was trying to secure his property, and he always regards me with great suspicion and distrust.

A very interesting point in the science of insanity came up in this case, in connection with the origin of Mr Twelve's various delusions. It is the question of hallucination and delusion. When we probed such a delusion as that he was being poisoned, we found that Mr Twelve accounted for his belief with the help of something which he had heard somebody say. A patient passing him in the ward had said, "Take care," and that obviously meant that he was in danger. In a similar manner he conceived all sorts of queer ideas as to what he should do at this time or that. He usually began with the phrase, "I had better," or "It would be better if I"—then came some silly and trifling proposal such as that he should sleep in a certain room, or that he should walk out with a given patient, or take his meals with some selected person. When we inquired what had put such an idea into his head, he explained, under pressure, that he had heard someone say so. He did not like to confess the source of his ideas, and evidently distrusted his ears, or his interpretation of what he had heard. On investigation, we found that these directions were all imagined, either in whole or in part. Sometimes someone had said something which he falsely construed into an instruction to himself; but quite often he had imagined the instruction as well as the interpretation of it. It was often at night that these ideas came into his head, when there was no one near to speak to him except his attendant, who certainly did not.

A fine question here arises as to whether we are to call such things delusion or hallucination, or both. With a little analysis, we can discern a series of impairments in all the levels which subserve judgment, perception, and sensation. His sense of probability was impaired in that it was limited in various directions by an incapacity to imagine several alternatives. It was biassed in favour of evil, and diminished in regard to pleasant suggestions. This, I take it, was partly disease, but also due to the life-habit of the man. He was limited on the generous and social side. He was not of the kind to believe all things, he could only believe a few; he was not of those who think no evil, he thought little else; not disinterested himself, he was sceptical of all good intention, and a hardened cynic. This sentimental disability was not corrected by close thinking. He had not the judicial mind, had never greatly practised the art of weighing pros and cons. He could not see that his feeling added to the wrong side of the balance. His whole tone was one of depression; there was wanting the pleasure which comes from a proper balance of energy and activity; there was present always the pain of a nervous state which is, in some sense, a fatigue. Everything, therefore, had to be read through a veil of gloom. Perception was impaired also, so that he did not hear aright. We were never able to detect

any evidence of visual errors which ministered to his impaired judgments, but there undoubtedly was error in hearing of an important kind. In this connection one must distinguish between defects of hearing as they are usually understood and those defects which are more properly considered as part of the function of intelligence. His ears heard sounds clearly enough, but the sounds conveyed false intelligence to him. He was like an observer who looks through a microscope expecting to see certain things in the preparation, and who sees them whether they are there or not. He caught inflections in the voices of those who spoke which the speakers did not intend. He missed inflections which were not in keeping with his general attitude. Similarly, as one's eye fills in blanks in a field of vision, his nerves of hearing filled out the sentences which he heard; he selected from a sentence only those words which corroborated his suspicions; he interpolated words which had not been spoken; he added to the sentence which he heard words which gave it an altered meaning and a significance which suited his fancies. Further, there was that phenomenon to which not enough attention is paid in psychology—the phenomenon of insistent reiteration. When he heard something, the words did not die away in his ears; they went on repeating themselves; he would go to bed with a phrase repeating itself in his ears, though his lips did not frame it; he would awake in the morning with some words in his mind which, perhaps, he had heard two days before, or may have dreamed through the night. Finally, there were pure hallucinations as the term is commonly understood. Sitting in the quiet of his room, his nerves of sound and of speech would spring a phrase upon him without warning—a phrase which he would walk across the room to hear again, a phrase which he could not but listen to and which must needs have had a speaker; it might be an invention of his own, though unconsciously so, or it might be a reminiscence.

Down the whole track of his hearing intelligence, then, there were sources of fallacy which beset his judgment. The result was an insanity of confusion—a form of delusional insanity which we must carefully discriminate from delusion. It is an insanity in which the patient does not say "I believe this or that." It is not characterised by concrete delusions. It is an insanity in which the patient sums up his state in saying, "I cannot understand. I hear and I see these things clearly for a moment; but when I go forward to the right conclusion, there comes on the instant other things which demand my attention and which I cannot explain. I must just take it *ad avizandum*."

Mr Twelve is now a case of confusional insanity. It is, as often, characterised by a marked impairment of initiative. It is a state which often characterises convalescence from delusions, and I was at first disposed to regard it as promising well in his case. But he has been confusional for more than a year now, and does not get any further. His other medical friends are not so sanguine as I about the prospect.

Meanwhile, he has apparently passed the climacteric.

Soon after admission he was very anxious as to the loss of the sexual function. He had too frequent seminal emissions, suffered somewhat from incontinence of urine, and once or twice from incontinence of fœces, had prinklings and flushings of heat in his skin, his vascular system was disturbed so that localised redness and blueness came and went upon his face and elsewhere, and he has had much languor.

His chart, which is not reproduced, shows a long steady line of weight, varying only between 12 stone 2 lbs. and 13 stone 2 lbs. The rise was very gradual. As has been said, he often refused medicine, but Fellowes' syrup, strychnine, pot. brom., Easton's syrup, digitalis and ergot, ol. morr. emuls., were all tried in this case. At one time we put him through a course of Orchitic extract, with a negative result. Another point of interest is that, just when the case recorded as a suicide was over, when we were all in a state of nervousness and on the *qui vive*, Mr Twelve took it into his head to try an experiment in strangulation. I had just left the surgery to return home about eleven at night, and was overtaken by his attendant with an urgent demand for assistance in Mr Twelve's room. As he had expressed delusional suspicions of every attendant who had occupied his room, we had allowed him to sleep in a room by himself. My belief is that he had somehow, and in spite of our precautions, got wind of the accident to Mr Eleven. I found him purple in the face, and deeply unconscious. His mouth was empty and he was breathing, though very slowly. I helped him by a little artificial respiration, and in a few minutes he came round all right. His pulse was good, and as his breath had a heavy odour which I could not recognise, I washed out his stomach. He resented the operation, but it was a useful deterrent as well as a safe precaution. The fact was that he had tied a piece of string round his gas bracket, tied it round his neck, and then twisted it. It was not an attempt at hanging, but rather at strangulation. He stood up and tightened the string round his throat until he found it become very uncomfortable, whereupon he immediately loosened the string. He remembered no more. Fortunately, the attendant looked in to see that he was asleep and found him on the floor, bleeding from a slight cut on his head. Mr Twelve insists that he did not mean to

go the whole length, but only to make sure that he could end his life in this way if ever he wanted to. Anyhow, we do not give him chances. We allow him to go on suspecting his sleeping companion; and his agents, with much grumbling from his heirs, support a deserving man to watch the patient.

Postscript.—In January, 1899, the patient is much less delusional, hardly at all hallucinational, but still very confused, not so much as to what he should think as to what he should do.

This is the last case here reported of an insanity of sin. It may seem to some that the relation between the conscience and mental disease suffers from overstatement. That is true only in the sense that a very large proportion of the cases recorded exemplify the importance of the spiritual factor. But there is no exaggeration in the description of these cases. And it is fitting that the record of them should occur in a study "of vice and of disease."

There are two causes of insanity—more properly groups of causes—to which a very large number of cases can be attributed, bodily weakness and fear. Neurasthenia in some sense, a depletion of energy which is out of proportion to recuperation, is the physical condition which predetermines insanity. Fear most commonly occasions it. The man who has nothing to fear and the man whom nothing makes afraid are not likely to reach a lunatic asylum. Habits and a view of life which impoverish the body and which at the same time put a man out of joint with his idea of what is safe are dangerous to sanity.

MISS THIRTEEN, AET, 45; ADMITTED, JULY '95; DISCHARGED, JANUARY '97; RE-ADMITTED, DEC. '97; DISCHARGED, JUNE '98.

A case of acute delirious mania with climacteric characteristics. Treatment by mechanical restraint. Rapid recovery. Relapse two years later. Treatment by chemical restraint. Slow recovery.

Miss Thirteen came of an eccentric family. Her sister, who came with her, however, denied the implication of

insanity as a family taint. She, the sister, regarded medical skill in matters such as this with contempt, and our questions as impertinent. An asylum was a place where a foolish relative could be safely kept out of the way until such time as she thought fit to clothe herself and return to her right mind. It was not a place where "anything was done" for the patients; so she said at a later visit.

At this stage the said relative was not in her right mind and was not clothing herself. She caught cold in consequence, and in other respects found the results inconvenient. Like many other cases of insanity in climacteric spinsters, sexual perversion was prominent. Miss Thirteen, whose case had not been very closely guarded by her sceptical relatives, had been masturbating, and had gone the length of inserting a hair-pin into her urethra, which her doctor extracted with difficulty. The only other complication was that she came to us with a dislocated jaw. We reduced the jaw a few times daily, until it was evident that the patient preferred to have it dislocated, and, for the sake of peace, we let her have it so.

There is nothing very important about this case except that it illustrates a principle in treatment to which I am heretic enough to attach much importance.

Miss Thirteen's state on admission was one of acute delirious mania, or at least immediately developed that way. The chief difference between delirious mania and ordinary acute mania is one of depth. In acute mania the patient is aware of her surroundings, and responds to them more or less purposefully. She listens to sounds and replies to them or echoes them, watches what happens around her and remarks upon it, speaks to people, strokes them, strikes them, spits upon them, according to the temper of her insanity. If she is of a more motor form of insanity there is less of the element of response to sensations and more of automatic movement—an insanity of expression in which the patient dances, sings, shouts, rhymes, mumbles incoherently, and regards any sensations which are forced upon her attention as interruptions to the flow of her activity. But in both the sensory and the motor type of acute mania the patient is "object conscious," her insanity has an easy outward relation. In delirious mania, on the other hand, the attention is almost wholly occupied from within, and cannot be reached by appeals from without. The patient

looks but does not seem to see, listens but does not seem to hear, handles things but does not seem to grasp their nature. The state is very like the delirium of severe fevers, and there are often movements exactly like the picking of the blankets which one regards as so unpleasant a symptom in illness of a bodily origin.

Miss Thirteen then was in this condition of delirious mania. There was only a slight temperature, never rising above a hundred. In many such cases it goes much higher. But she was very gravely ill, and we were not without anxiety over the result of the case. Dementia, and sometimes death, are common terminations of this form of insanity.

For two days we tried ordinary measures with this case, and the patient went from bad to worse. It was extremely difficult to give her enough food, for she let it run out of her mouth as if she did not realise its purpose. Without pushing sedatives strongly, it was impossible to get her to sleep, and we were anxious to keep off sedatives as long as possible. So she was just nursed all day, watched and soothed as much as possible, and a little warm food was got into her stomach by hook or by crook as often as the nurse could manage it. On the third night I went with her nurse late to the strong room, where she slept. We found her clothed in nothing, her bedclothes strewed over the room in narrow strips, which she was still tearing in an aimless automatic way. She took no notice of us when we came in with the light, but went on tearing and mumbling and scraping on the wall. You could not see a more typical or a more impressive case of its kind than this woman, standing in the almost empty room, a shred of blanket round her middle, her grey hair streaming over her face, sordes clinging to her teeth, saliva dribbling from her gaping mouth, grasping the blanket in her dislocated jaw, mumbling and sputtering as if there was no one in the universe but herself.

Once a homeopathic American told us that their treatment for similar cases was to sew them up in canvas and fill them so full of hot milk they would not wish to get up. I bethought me of his prescription for this case. We wound a warm blanket round each of her legs, and another round her chest and abdomen; we similarly bandaged her arms in the blanket shreds, and we bound her two legs

together and fastened her arms to her sides. Then we laid her on a mattress, and we bent the mattress round her and tied it round with sheets. A pillow was put under her head, the mattress was fixed in a corner of the room so that she could not roll over and suffocate, and we did our best to fill her with warm milk. The appearance was strikingly like that of a fat mummy, or still more like that of a papoose. Then we left her, the nurse having instructions to watch her carefully without disturbing her.

I am afraid now to say how long that patient slept. In those days we did not have charts of sleep. But in the morning, the nurse, who had seen her about every half hour through the night, reported that she had never stirred, that she seemed to go to sleep immediately, that she had slept all night, and that she was still sleeping. It was midnight when we put her in her blankets; it was late forenoon when she awoke, and she was like a new creature. From that time she never looked over her shoulder. She was taken out to walk for a short time twice that day, and now the delirium had gone and she talked a lot of sense as well as nonsense; she took her food, of which we gave her plenty; and, for the first time, she kept herself clean. At night she specially requested to be put to sleep again in the manner in which she found herself when she awoke, and we of course did so. Three days later she had her jaw reduced for the last time, and she was quite soon able to sleep *à la mode*. We always say that that delirious mania was cured in ten days after we began the blanket pack. She was shortly afterwards sent out on probation, then finally discharged.

Two years later Miss Thirteen relapsed and was brought back to us again by the sceptical sister. Her state was almost exactly as before, but not quite so severe. She was sexual, anæmic as before, excited, and in a few days became delirious and dislocated her jaw. This time we tried chemical restraint, and kept the patient in the dormitory under sulphonal. Sometimes as much as a hundred and twenty grains a day were administered to keep her quiet, but the dose was of course varied according to her condition. She was abundantly fed, for, after the first few days, she swallowed food all right; and in every respect as much was done for her as we could think upon to do. It was three weeks before the sulphonal could be dispensed with, and

she is still in the house. She has been here for three months, but her recovery is only partial. She has lost all her violent excitement, and her delirium passed off early; she speaks coherently and behaves with propriety. But she is in poor health and we cannot tone her up. We have tried nearly all our stock tonics—iron, ergot and digitalis, nux vomica, cod liver oil emulsion, petroleum emulsion, malt—but we cannot get her weight up to standard in spite of any amount of special feeding. The least exertion tires her, and she complains of vague aches and pains. Further, she has a habit of almost constantly muttering when she is not attending to anything special, and again and again she has seemed to be on the way to another serious relapse. Her relatives at this stage think she has been away from home long enough. There were technical reasons, quite apart from medical considerations, which prohibited our using "restraint" on the patient's re-admission.

Now no one would be foolish enough to base upon this case any sweeping theories as to the superiority of mechanical restraint over the use of sedatives, but one cannot help being deeply impressed by the contrast between the results of the two experiments. There may be some hidden cause for the longer illness in this case, but a few more experiences such as this would go far to create a conviction in favour of mechanics over pharmacy. The fact is that mechanical treatment is regarded by the specialty as not only old fashioned but more or less barbarous. The abuses of the old days when straps and chains and manacles and straight jackets were in vogue were so terrible in their consequences that those who have seen the benefit wrought by the doing away with these implements of treatment cannot bring their minds to look at the subject dispassionately, and have made a fetish of a reform.

There is very little doubt, I think, that restraint by humane appliances will some day again come to play a part of the first importance in the treatment of the insane. The psychology which is the rationale of the method, is simple enough. Take the case, for example, of resistive insanity—the most difficult of all varieties to nurse properly. In that disease the patient has an unreasoning semi-delirious resistance to offer to everybody and everything. If the nurse gives her food, the patient struggles to throw it away; if she tries to take the patient for a walk, she throws herself on the ground; if she tries to keep her in bed, she struggles to be up and about. There are two kinds of environment which are appropriate to such resistive states of mind. One is a condition in which there is nothing to resist —a boundless field where no harm can come to the patient, a clear sky overhead, vastness and, as far as may be, emptiness everywhere. But you cannot get these conditions in this country. In some climates you might let the patient roam at will, and she might lie down to sleep at night wherever it seemed good to her to lie; but this climate

prevents that. Again, there is the question of food, which on this method you could arrange for if you had the right kind of food-trees in your grounds, but there must be nothing which the patient must not eat. In short, the plan of never exciting resistance is impracticable. The other plan is to make your treatment so strong as to effectually forestall resistance even in an insane mind, which is at the mercy of a brain which does not supply food for judgments, but which guides the patient reflexly. A patient who will struggle fiercely with one or two nurses will not even try to struggle with four or five. The point is not to overcome resistance but to prevent it. Carried to its utmost, you may take a resistive case and put him in a steel case, or in a bath closed except at the aperture for the head. Or, as we did, you may bandage your patient so securely as to prevent movement in every direction except movement of the muscles of the head and trunk, and these do not matter so much, because it is the more voluntary muscles which the insane chiefly abuse. If you make your splints soft enough, using a mattress and blankets, for example, and if you make your bandages secure enough, you will have achieved rest with safety.

Miss FOURTEEN, Aet, 78; Duration, 6 Weeks; Unrecovered.

A case of senile mania in an old lady, an active-minded philanthrophist. A very precarious senile heart. Slow recovery. Injudicious interference of a niece. Relapse. Discharge. Impending dementia.

Miss Fourteen came of a family in which, were we rash enough to enquire, we would find more than one case of genius, and more than several of what we may charitably call eccentricity. She herself was by no means the least notable or the least eccentric. She was an accomplished woman, keen on enquiry and on reform, kind to many, affectionate with none, bent upon good works, and still more bent upon having her own way in the doing of them. She was interested in the welfare of a great many reprobates and others, and earnest in her endeavours to keep them in the right way; but she had as strong a belief in reform under what she called the "skelping method" as in improvement incited by prospects of happier experiences. She approved of kicks as much as of halfpennies. Her tongue was always ready with wise words and with stern rebuke.

At the end of a busy and zealous life Miss Fourteen

found herself, without recognising it, under the tyranny of a senile nervous system, aggravated in its instability by an irregular and precarious heart. She became more anxious instead of learning restfulness in her old age, and she was not the woman to easily brook control. As a result of well-meaning attempts at interference with her liberty to exert herself as she pleased, eat what she fancied, and drink as much as she could forget, she broke "seven" panes of glass in a nursing home (she remembered the number with zest), and rushed out into the street, where she sat down in the mud and shouted for the police. That night she came to Mavisbank.

Her state on admission was one of great physical prostration, but her mental state did not allow of rest. She was very excited, pleased to be under what she was disposed for the moment to regard as kind care, as sensitive as a monarch to any hint of control or advice. To show how strong and active she was, she proceeded to execute a *pas seul* in the corridor, and shouted shrilly when she was restrained. She had almost no memory for recent events except the outstanding fact that she had broken seven panes in her righteous wrath. She would eat every half hour, and drink port or brandy as often, forgetting as soon as she had swallowed it the amount which she consumed. Her conversation, when she was not shouting, expressed confusion. She relapsed frequently into maudlin tears.

Four sources of difficulty beset us in our attempts to deal with the case, and we may give a little space to each of them.

The first of these was the condition of her heart, which was, as has been said, very precarious. Again and again, in these first days of treatment, we gave her up as lost. Her pulse would sink and sink until it became imperceptible, and when it was tangible it was irregular and intermittent and small. We minimised the use of alcoholic stimulants as far as possible, and resorted to cardiac tonics. On more than one occasion a hypodermic of ether was necessary. Night after night she was at death's door, and returned just in time. By rest, frequent feeding, digitalis, strychnine, etc., we kept her alive, and soon she became too well to be easily restrained. During her whole stay, however, her heart was a danger. Again and again she insisted on dancing or bicycling or walking, so as to seriously imperil

her life. The struggles which were necessary in order to prevent these active exercises were almost as harmful as they. Often she had fainting turns, even towards the end of her stay, and at such times her pulse rapidly sank. More often it would diminish in force gradually, and then she felt very ill and became depressed and tearful. On one occasion, when she insisted on getting up to the night stool, she did wholly lose consciousness and fell to the floor. No damage was done, medical aid was at hand, and she soon was brought round.

Another difficulty was her memory, which was very bad. She would repeat the same old tales day by day and hour by hour *ad nauseam*, ask the same old questions, propose the same diversions—she was great on "diversions"—and we never could persuade her that she was not being starved, as she could not remember taking food. The same difficulty, as has been said, inclined her to indulge much too frequently in alcohol, which, of course, was only given in small doses and at stated times. We printed some large texts for her, to which she might refer for information, as they were hung up at the head of her bed—such as that she was not going to leave until her doctor ordered it, that she was detained under a sheriff's warrant, that her affairs were being managed for her, that she could not attend meetings, etc., and we took from her receipts for food and for drink, the initialling of which greatly amused her, and subsequent reference to which greatly puzzled and partly satisfied her. Eventually she had a book in which she recorded everything, and she spent much of her long day over these records; but, unfortunately, by the time she got to the end of a page, she would have forgotten what she meant to say at the beginning of it.

The next difficulty was the autocratic habit of the patient, which was aggravated by disease. She would have been a hard case to manage under bodily illness if her mind had been quite clear. Under her mental attack she became intensely resistive. In other words, her love of free action took the insane form of active resistance to any and every suggestion which was not so presented to her as to allow her to think it her own idea. If one proposed a drive, the idea was absurd; but there was nothing absurd in her own proposal that she should yoke her pony and amble to Aberdeen. She clamoured for food as soon as a meal was

finished, but when the next meal-time came the plates were as likely as not to be thrown across the room. She begged to be allowed to sit or to stroll outside for hours, but she must lie in bed or get up as the spirit moved her, and many a severe tussle occurred before she realised that she had to obey medical orders. She was taken to stool very often both by day and by night, but it was a daily occurrence for a long time that the nurse was greeted with the exulting announcement that the sheets were dirty. In short, her rebelliousness and insane spite called for the greatest tact and persuasiveness.

The fourth and last difficulty finally prevented the recovery which was imminent. Miss Fourteen had improved very much, she was much more amenable, almost never violent, had no delusions, and was aware that she had been very ill and required treatment. But she was very distressed at the idea that she should be in an asylum, and so she was placed in a private house where she was day and night under kind care and away from all obvious suggestions of restraint. There her improvement continued. Her memory was still bad, she had lost initiative and sound judgment, but she was nearly well enough to live outside under modified control. Throughout the case her friends had given considerable trouble, for, as the friends of the insane often are, they were people who could not easily trust the discretion of others in matters of which they knew little or nothing themselves. But of all relatives and friends of the insane I do not think I have ever come across so unique a collection of queer people as Miss Fourteen had gathered round her. She was a woman apparently who was attracted to the peculiar. Nobody who was her intimate was an ordinary person. Her own folk, her protégés, her servants, those whose affairs she had managed, and those who had tried to manage hers, were all characters. They had each a curious personality; none of them were remarkable for calm sense: and we had at last to prevent everyone from seeing her—even those whose visits did her good. Her own physician and her lawyer alone were admitted to her presence. Notwithstanding the rule, others hovered near her, loitered in the grounds, came often to enquire, and were not quickly seen to go. Correspondence over the case was frequent and to little purpose; it seemed not unlikely that the old lady would have to go under a *curator bonis* who would dispose of all

over-interested parties. Some petty quarrelling about her estate was, I am told, at the bottom of the trouble, as each feared the other would gain an undue influence over the patient. At last we were mistaken enough to allow a visit from a relative, who was supposed to be a woman of sense and a favourite with the patient. What idea possessed the lady it is hard to say, but the imputation was that Miss Fourteen was being detained by us wrongly and at the instigation of interested relatives. She was grossly rude to the matron, to her cousin, and to us, and deliberately set about to incite the patient to rebellion. When I considered that the visit had already lasted too long, I asked her quietly to leave the patient, whereupon a storm arose which ended in the visitor being gently but forcibly ejected from the house, leaving the old lady in a state of wild excitement from which she never properly recovered. Thereafter nothing that we could say or do would calm her; she had been promised immediate discharge by this lady; she would have recourse to the law; she would do everything and anything that she inclined to do. That was the end of all progress and the waste of months of treatment. She went off her sleep, became as resistive as ever, lost strength and spirits, and became once more unfit for treatment in a private house. After some weeks she was taken to the house of the lady of the incident, whence, after a short effort, she was put into the asylum close at hand. There, I hear, she has again regained strength, and is quieter and not violent. She has been a long time there now, and it seems too likely that she will end her days there—a pathetic close to a life more full of importance than has fallen to the lot of many women in our time.

This effect of the excited impatience of a niece impresses upon one again the importance of moral causes in insanity. In one short hour the personal friendly relation which months of effort had established went by the board at the bidding of a suspicious meddler; and from that day onwards the patient's trustfulness was turned to rebellion, rest was denied her, anxiety and resistance were her hourly portion, and from a prospect of an early, if precarious, recovery, she turned aside into ways which will almost certainly end in dementia.

MRS FIFTEEN, AGE ON ADMISSION, 43; ADMITTED OCTOBER, 1893; DURATION ON ADMISSION, 4 YEARS AND 9 MONTHS; RESULT, POSTPONED.

A case of angry, delusional, stuporose, Mania with impulsiveness.

I have left this case to the last, because I wish to use it as a text upon which to say something of the vices of classification. I have thought it better, so far—because I presumed it would be acceptable—to describe these cases under the conventional class names—mania, melancholia, etc. But the student ought, I think, to understand quite clearly the confusion which underlies our present classification. Before discussing that subject, however, we may with advantage consider Mrs Fifteen's case.

Mrs Fifteen's was a case in which delusions were very prominent, and to that was added a state of almost constant anger, occasionally expressed, and then always violently. Most authorities would, without doubt, call it a case of angry mania. She was, undoubtedly, very often and very violently angry. That is usually regarded as a state of feeling which characterises mania, though, as was pointed out, the feeling of anger depends upon the extent of its expression as to whether we are to regard it as pleasant or painful. Another consideration in this, as in many cases, is that the patient's delusions were of a melancholic kind. She was persecuted, forsaken, divorced, and defiled. Notwithstanding, nine specialists out of ten would call her illness chronic mania. We have seen that the duration is about nine years, and that she was often violent in her mood. The long duration and the violence are what authorities would cite as bearing out their diagnosis of mania. Yet mania is supposed to be a state in which the pleasure feeling predominates. Personally, I would prefer not to call Mrs Fifteen by any of the usual class names. I would rather call hers a case of insanity with delusion, with some stupor, with alternating mania and melancholia. She really is a case in which her state varies by the hour so as to conform to types of several insanities consecutively. But if I were compelled to designate her by what I think is her most usual defect, her obstructed expression, I should

call her a case of stupor—an angry delusional stupor, with impulsiveness

The history of her illness and its duration make one disposed to expect nothing in the way of improvement. On admission she had been for nearly five years insane. At the time of her admission she was aged forty-three, and is now about forty-nine. Her memory was seriously impaired when she was admitted, and she had hallucinations of hearing. She was considered demented at that time, and could not be induced to answer questions, to hold conversation, or to conduct herself in a decent or rational manner. She has had many delusions at various times, but she generally clings to them for a long period. She refuses to regard herself as Mrs Anybody, and has hitherto cursed anyone who addresses her by her married name. She answers to her maiden name. Besides this loss of her identity, she had a most unpromising delusion, namely, that things and people about her were filthy, and defiled her. Such a delusion, implicating as it does the centres which are among the most deeply organised, namely, those for taste and smell, generally means a serious dissolution of mechanism. In fact, these are amongst the rarest of delusions in what we call functional insanity, though not uncommon in general paralysis. Nor is it right to call these beliefs delusions, if we mean that they are pure errors of judgment; they are almost quite certainly paræsthesias or hallucinations.

Before we put Mrs Fifteen under special treatment, she thought that we were all allied against her, and her constant refrain was that we were damning and filthing her. Mavisbank was a houseful of criminals, everyone defiled her. In consequence, we were to suffer the penalty of death, or as she expressed it, "You'll lose your damned life." The swear word is not quoted as a casual expression or occasional. It was a habitual phrase with her which she used whenever anyone did what was in her regard unlawful, and it has become a proverb in the house, as when one might say "You deserve killing." To purify herself from the "filthing" of the contact with her neighbours, she bathed very often and very thoroughly, and, if she was not watched, she bathed her garments at the same time, and put them on without drying. When out of doors she would not walk a step unless led by the arm. She was dirty in her habits, and

must needs be led to stool regularly, else she voided in her garments. She would not sleep in the same room with anyone else, she would not eat food except at a table by herself. She never dressed herself, undressed, or started off to do anything without suggestion or even persuasion. She never touched work. She would not call patients by their names, nor pass things to them at table. When addressed she usually swore, and when annoyed she gave forth a storm of oaths.

Her bodily health has all along been fairly good. At first, and occasionally in subsequent years, she suffered from constipation, and we had great difficulty in persuading her to swallow medicine. She maintained a good weight of from 12 st. to 12 st. 6 lbs. During the year 1897 she began to show signs of reaching the menopause, in respect that her menstrual function began to change, at first becoming much too frequent, and latterly promising to cease after a month or two of delayed menses. The last period occurred after one six weeks previously; she menstruated scantily, and it only lasted a day. That was on 13th December.

Notwithstanding these changes in menstruation her mental state did not show any signs of that improvement which we thought might occur coincidently with the menopause. So we decided, with the sanction of her friends, to give her the benefit of a trial with thyroid gland. Apart from the hope that the drug might have a good effect, I was persuaded that a few weeks in bed might change some of her manners and give us a chance to begin better habits with her. She was put to bed in the hospital dormitory. The nurses expected a scene on the occasion of her first night in company, but she retired gracefully and without discomposure. The patient's weight then was 12 st. 5 lbs.; she had good appetite, and she slept an average of about 7 hours each night. Her pulse was small and soft; no cardiac lesion was discovered. After four days' observation we began the thyroid. Under various headings we may summarise the facts as follows :—

Treatment.—In this case our administration of the drug was more gradual and more prolonged than usual. There was some gastric disturbance which led to sickness and loss of appetite, and we never gave more than 60 grains of thyroid in the twenty-four hours, and that only once. The patient was put to bed on the 19th December, 1897, thyroid

was begun on the 22nd Dec., and discontinued on the 23rd of January, 1898. Excepting the gastric disturbance there was no untoward symptom. An important point was made of moral treatment during this period. The nurses were enjoined to make persistent attempts to overcome the patient's dislike to society, to sit a great deal at her bedside, and to try to elicit rational response to acts of friendliness.

Weight stood at 12 st. 5 lbs. when she was put to bed, and we of course did not take the weight during thyroid treatment; but at the end of the course it stood at 11 st. 3 lbs.

Sleep before this time was not accurately recorded, as the patient slept in a room by herself, but, so far as we could learn, she slept then an average of about seven hours a night. She had, however, many bad nights, and she used to be heard moving about her room and muttering. Under thyroid, sleep was at first irregular, but soon steadied, and by the end of eight weeks she would have slept on all night had she not been occasionally awakened by the other patients.

Mental state.—When Mrs Fifteen was sent to the hospital dormitory she was best described as surly. She would not recognise us, much less speak to us, and repeated attempts to elicit conversation produced its expletive form. She would not let one touch her even to feel her pulse. This condition gradually gave way, and by the end of treatment she allowed me to feel her pulse, and smiled and looked pleased when we approached her bed. She began also to have rational talk with the nurses and other patients, though I could not get her to talk.

Temperature.—Observation in bed demonstrated the curious fact that, even before thyroid was given, the temperature in this case was very variable. Quite often it was subnormal, for we took her temperature thrice daily all that time, and the various records varied from 97° F. to 99° F. without rhythm. We could not account for the rises, but I have never seen a case in which the word "choler" seemed more applicable than in this one. When she was disturbed by anything, when she was bottling up irritation which she could not or would not freely express, it seemed to find its own expression in the skin surface. Under thyroid we never induced a higher temperature than 100·2° F., and only three times did we induce 100°.

Constipation continued all through, and was combated chiefly by saline draughts which, of course we have discontinued.

Appetite was good at first but it was indiscriminate. She ate like an animal. When thyroid was begun she lost all appetite and often felt sick, so the drug had sometimes to be omitted.

Menstruation was in abeyance throughout.

Heart symptoms were carefully watched. Her pulse was poor, as it often is in these semi-stuperose cases. Her feet were cold and her skin clammy. Under thyroid the pulse became fuller and tighter, never at all irregular. At the end of the treatment the character of the pulse was improved, but was not, and is not now, what it should be as regards tension.

At the end of six weeks we allowed Mrs Fifteen to sit up part of the day, and by easy stages we let her return to the mode of her life before she took to bed. We still, however, kept her in the hospital dormitory. It is now four months since the drug was stopped. She has not quite recovered her lost weight, but, as she was formerly too stout, we shall not try to fatten her while she maintains improved health. Her complexion is clearer, her skin is warmer than formerly to the feel, there is less congestion in the face and the extremities. The pulse is fuller and of fair tension. The appetite is excellent; there is good digestion and no constipation. Her urine remains free from albumen or other abnormal constituents. She has not menstruated for five months.

Mentally she is enormously improved, chiefly in respect that her gustatory perception is keener and less perverted; sociability is greatly increased; initiative is much better; irritability is diminished; violence is in abeyance. She picks and chooses food now instead of as formerly eating largely of everything; she has not relinquished her delusions of filth, but she has ceased from her former expressions of it. She speaks to us all now at times, and has long talks with some; she sleeps in the same room with other ladies; she eats at the same table; she calls patients by name; she passes things at table. Greater initiative is shown by the fact that she now walks without being dragged; she dresses and undresses and goes to stool without help; she tolerates her own name; she rarely swears; she does not

storm. In addition, she even answers to her married name at times, as if she were about to admit her own identity.

Postscript.—Several months later than the time when the above was written, Mrs Fifteen is in many respects improved, and she has in other respects relapsed. Now, January, 1899, almost exactly nine years since her insanity began, she reverts not infrequently to her violent language —that is her worst kind of relapse. But, in general, she is much more sociable than say two years ago, and not long since, she wrote, at dictation, a letter to her husband. That was an implied admission of her real identity; but it is not one which she will spontaneously and habitually allow for a long time yet. I shall presently compare this case with that of Mrs Nine, the chronic angry maniac, who used to kick down so much plaster, and who recovered after a very long illness. The improvement in Mrs Fifteen's case began when we treated her in bed under thyroid, and it has been maintained by efforts on the part of the nurse exactly comparable to those which earned so great a success in Mrs Nine's case.

When Mrs Fifteen came up from the hospital dormitory we had achieved one great gain—she permitted a slight personal relation. A nurse was told off to foster that by all means in her power, and she has to some extent succeeded. Here is one very important change, that, though Mrs Fifteen still believes that she is undergoing a process of "filthing," her belief about it does not have so personal a reference. It is not the doctor or the matron or the nurse who is now the vehicle of contamination. She allows all of us to come near her, to feel her pulse, to arrange her cloak, without cursing. Her nurse, in particular, can perform all sorts of personal offices without offence. There is some sort of understanding between them now which did not exist before. The question which affects prognosis relates, in my opinion, to the possible existence of an incurable lesion in sensory mechanisms—some disturbance which perverts the patient's perceptual functions, and which determines her feelings of disgust.

Before proceeding to say anything about classification, it is interesting to contrast this case of Mrs Fifteen with that of Mrs Nine.

	Mrs Nine.	Mrs Fifteen.
Sense of touch .	Nothing.	Paræsthesias or hallucinations of defilement.
Smell . . .	,,	Paræsthesia of disgust.
Taste . . .	,,	Paræsthesia of disgust. Disability in fine tastes.
Hearing . .	,,	Hallucinations in early stages.
Delusions, Memory, etc. .	Positive and persistent delusions expressing new sense of identity (delusion of grandeur), but without forgetfulness of previous identity or other serious impairment of memory.	No persistent delusion of a positive kind except the unpleasant sense of defilement. Loss of sense of identity without a positive substitute except the reassumption of maiden name. Some considerable impairment of memory as regards general facts.
Lip expression .	Fairly constant and voluble, especially when alone.	Occasional and explosive.
Hand expression .	Facile.	In abeyance.
Foot expression .	Kicking frequent.	Never kicks.
Eye movements, and movements of head	Almost constant.	Almost constant stillness.
Initiative in walking and other acts	Good.	In abeyance.

The above table may seem to refer to two patients who could not be compared by an expert and classified under one name. But that is merely because the tabulated contrast sets forth their differences clearly. You might walk through the wards day after day for months and note only the points of resemblance—the same isolation from her fellows, the same scowl when addressed, the same oaths when aroused, the same absence of all rational interest and occupation, the same resentful expression.

The psychological, and, as I take it, the pathological relationships of these sensory manias is very interesting. Some of them are almost exactly half-and-half cases—sensori-motor manias. The patient sings and jumps and dances almost as much as he listens and looks and handles. Others, which recede further from the expressional types, approach the delusional, the emotional, and the stuperose insanities. Nearly all sensory manias in which the excess of sensation gets the length of paræsthesia or hallucination begin to have delusions about their false perceptions. In the minor cases these delusions are ephemeral and are forgotten the moment that the patient is led into an objective attention. Others are more fixed when the sensational perversion is more insistent.

If one were asked by an earnest student how best to classify cases of insanity, one's proper answer would be in the terms of Mr Punch's

classical advice—"Don't." There is probably no fallacy in modern science which accounts for so much heart-burning—so much error in diagnosis and in treatment, so many mistakes in prognosis, as the delusion that insane persons can be classified. The subject is one of so great an importance that no apology need be offered for a digression which will perhaps make clear one or two aspects of the fallacy. "The wit of man," said the late Dr Hack Tuke, "has rarely been more exercised than in the attempt to classify the morbid mental phenomena covered by the term insanity. The result has been disappointing." It may save the student further disappointment if we inquire briefly into the basis and the functions of classifications, and if we consider for a moment whether insanities are arrangeable entities. Two precedents the student may suitably keep before his mind. We shall not here refer to them again. One is the attempt to arrange people according to "Temperaments." The other is that attempt by psychologists to regard mind as possessing so many faculties which could be arranged and set forth in proper order, and each of which might be considered apart from the rest. In both cases the systems adopted have been so discredited that reputable scientists shrink even from a legitimate use of the terms which were used.

Having regard to personality, it is obviously absurd to try to classify our patients. The only scientific basis of classifications is one of essential organic differences. Animals and plants, for example, have been classified according to quite definite, constant, and essential qualities and parts, whereby they can be arranged in their natural order. But there is no natural order in minds, whether sane or insane. The one fact which essentially distinguishes the human species is personality. Personalities are not lost in insanity. And personalities are not arrangeable. We shall never discover—because they do not exist—the scientific laws which determine a man's or a woman's place in a natural system. All minds are hybrid—hybrid to the N^{th} power. Every person is a variation, so individual as to entitle him to be considered as a species all by himself. There are no natural orders in the spiritual world.

The same criticism applies to plants and animals, though not with so much force. Scientifically considered, all collie dogs are of one class. But the judge in the show-yard knows better, and the shepherd knows better still. Both of them judge by *points;* but the points which count in the show-yard—all of them merely appearances—are not the points that count on the hill. It is right that our judge should classify the dogs according to bone and muscle and integument, and that the other should have regard to points in intelligence. Neither of them has regard to the whole dog. The shepherd's criterion is the better—*quo ad* a collie dog's place and function in society — but his *points* are very far from affording a basis for scientific arrangement. So also with insane folk. Science ignores personality, and personality transcends science.

This difficulty, it may be urged, obtrudes itself with reference to all diseases. All classifications of heart disease, for example, or of disorders of the bladder, have no reference to the personal equation. But insanity is a disease of the cortex, and the cortex is the organ of personality. The heart is not really the organ of the emotions or of

any other mental function ; neither is the bladder. Diseases of the heart modify circulation ; diseases of the bladder impair excretion ; but diseases of the cortex alter character and conduct. It is the fond hope of some specialists that one day our knowledge of cortical pathology will be sufficient to form a basis of classification. In all probability, however, the lesions of the various insanities have not special histological characters. General paralysis, alcoholism, idiocy, perhaps epilepsy, and a few others, *may* have histological features which are both essential and distinctive. But there is no reason to assume that that is true of mania, melancholia, stupor, amnesia, and delusion. The symptoms of insanity—subjective and objective—are determined by the distribution of the lesion as much as, probably much more than, by the kind of it. The cortex is a system of organs although their correlations are very intimate, and the result of an insanity depends upon which of these organs are most deeply involved. To have a basis for pathological classification we must therefore know, in the first place, the essential nature of the diseased process, and secondly, the essential organs involved. The necessities of the case will be understood from a comparison with gross cerebral disease. To diagnose or to classify paralysis it is not enough to distinguish between apoplexy, embolism, and thrombosis, or between thrombosis and sclerosis, or between any other forms of cerebral lesion. Having classified the kinds of lesion, we must go on to consider their distribution—what centres or tracts are involved. But in the case of the insanities such a knowledge is infinitely difficult, because the tracts whose differentiation subserve specialised functions of the mind are infinitely complex and individually variable.

An etiological classification of insanity is not so foolish as at first sight it may appear. The votaries of science who think that they are on the way to arrange insanities in their natural order would have it that nothing could be more crude and unscientific than to arrange diseases according to their causes. But that objection is invalid, just in proportion as the cause of a disease determines a characteristic lesion. In insanity it is not true that certain causes produce certain results. Alcohol, for example, sunstroke, syphilis, the climateric, sometimes result in insanities ; but these are determined by the character of the patient as much as by the cause of his illness. All the same, these etiological factors do count for a great deal. The distinction between male and female, for example, is of the first importance. Time of life is another essential factor. Here is an occasion for the remark that we are rather slipshod in our arrangement. A classification of the times of life is necessarily arbitrary. But, since we have relinquished the ambition to make an essential classification of the insanities, and avowedly have regard merely to expediency or convenience, it would be well to agree upon a division of the times of life, and upon terms by which to designate them. That division should be precise and complete. The objection that there is nothing characteristic of periods other than those usually designated as reproductive crisis, is not valid. The commercial and the domestic ideas, for example, are quite as characteristic of maturity as religiose and amative ideas are characteristic of adolescence.

Lack of precision, partly due to our necessary ignorance, characterises the rest of "etiological classification." Some of the terms

used refer to toxic factors, some to neural irritations (uterine, cardiac, etc.), some to deprivations (deafness, aphasia, etc.), some to depletions (anæmia, starvation, etc.), and some to moral or spiritual causes. A host of causes, quite as important as most, have not been honoured by special names in the etiological list of the insanities. It is almost unnecessary to say that these factors are not distinctive, and that there is not, in etiology any more than in any other aspect of mental disease, a possible basis for scientific classification. None the less would it be instructive to arrive at a precise understanding as to divisions of the causes of mental disease.

Lastly, there is the attempt to classify insanities according to symptoms. A few words only are necessary to point out to the student the most important fallacies of this terminology. Sometimes we hear the symptomatic arrangement spoken of as a "psychological classification." "Mania," "melancholia," "stupor," "confusion," "delusion," are supposed to describe the patient's state of mind. But no one who has studied psychology proper supposes that this is really true. These names do not always and necessarily describe the mental content. They only describe mental appearances, expressions, conduct. In cases of delusion we have no reason to suppose that the patient is believing something other than what he says; but it is quite mistaken to assume that an insane "belief" means the same to an insane man as our beliefs mean to us. (If a patient were absolutely certain that he was going to perdition, in the same sense as we are convinced that we are going to bed, he probably would not hang himself.) In mania, and in all states approaching delirium, there is little reason to suppose that the patient is attending wholly or even chiefly to what he says and does. For all that we know, a patient who is tearing blankets may be thinking of picnics, or of cattle, or of statuary. In cases of stupor, especially, we know almost as little what inward consciousness there is, if any, as we know of the mind of one who is asleep and dreaming. Even Bevan Lewis' classical distinction between melancholia and mania as respectively manifesting an excess of inward and of outward consciousness, should properly be modified so as to read that the *conduct* appears to have an inward or an outward reference. The conduct of insane persons is, of course, the most important and characteristic thing by which we have it in our power to designate them; but let us understand clearly that we are doing so.

If we really could get at the whole of an insane mind, we would at last have a convincing demonstration of the futility of the attempt to classify insanities. We should probably admit then, what was said at the outset, that every man has an insanity of his own — that individual differences are always essential and characteristic. Take any two cases whatsoever, which specialists will class together, and you will discover differences between them which are quite as important as their resemblances. Also, if we watch closely, and with an open mind, we shall find that nearly every case, at one time or another, has symptoms of each of the insanities. This is especially true of the milder disorders. The student must therefore beware lest, having classed a case in one of the big groups, he thereafter sees in it only what the text-books have to say about that group. And this passing of a mind from one state to another, so as to conform

apparently to the type of four, or five, or six insanities, one after another, suggests also the importance of the vast number of hybrid cases. No one disputes the existence—for a time—of typical cases. If it were an exceptional thing for insanity to depart from type, we might ignore the exceptions, or regard them as proving the rules by which we establish the types. But the exceptions are the rule. A pure case occurs more seldom than mixed cases. There are thousands of semi-mania-semi-melancholias, semi-delusion-semi-stupors, semi-stupor-semi-dementias.

There is only one other point which need here be specified, but it is of the first importance. The greatest fallacy of all is that specialists habitually ignore or minimise the negative symptoms in insanity. To consider this subject adequately would be to extend this digression unwarrantably. But a few words may suggest the importance, from a scientific view, of the negations in the insanities.

It has been said that the usual names for insane states chiefly describe appearances in insanity. They do not, to any great extent, refer to the hidden content of insane minds—for obvious reasons. But we go further now, and note that classical descriptions almost entirely ignore disappearances. Yet disappearances are one half of insanity. What the mind has lost is as essential and characteristic as what it retains. Indeed, the "wants" are the most essential and the primary facts. If ever the student tries to correlate symptoms and pathology, let him remember to study minutely the disappearances, the abeyance of function. One illustration will suffice. A pious spinster, let us say, is diagnosed as in acute mania. Read the books and discover what that is, and you will find described quite a number of positive facts, all of which are borne out by the case of the pious lady—violent excitement, shouting, dancing, incoherence, filth, oaths, destructiveness, imagery, gluttony, posing, obscenity. But these positive activities are the mere remnants of the disordered brain. It is the "abeyance of inward consciousness" that is the primary fact. In the case of the good woman, the loss of fear, of purpose, of calmness, of prayer, of modesty—these and other losses are her insanity. All the "appearances" are but the normal activities of mind and muscle let loose by the abeyance of the functions of control. Specialists do not contradict these facts; on the contrary they imply them. But to understand insanity we must closely observe them and emphasise them. In the beginnings of insanity, especially, these considerations are of importance. The cases which congregate in asylums are for the most part suffering from the sequelæ of their insanity. It is in general practice that the primary and essential facts of mental disease are to be observed. And if the student wishes to understand the psychology of disease, and to arrive at some idea of its pathology, let him watch closely the disappearances of mental function in cases still only on their way to the asylum.

Enough has been said to suggest the futility of attempting to classify insanities. The value of all pathological, and etiological, and clinical observations is enhanced as soon as we leave classification alone, and have regard merely to description. For the purposes of examination rooms, and for convenience, it may be necessary to "make a diagnosis." Our problem, then, has resolved itself into one of nomenclature rather than of classification. What name shall we give

to this case? As a final consideration, let the student remember what has already been said, that the prevailing error—from the point of view of the examiner, as well as from that of therapeutics—has been to generalise when we ought to have analysed. Do not try, in your diagnosis, to put a patient into a class or group; try to separate him from all other cases, to single him out in a class by himself. Call him by appropriate names, but do not restrict yourself. Add a name for every point of view from which you can regard him, and leave room to append new ones. I read recently an interesting account of a case, and under the heading, "Diagnosis," this appeared:—

"Insanity, male, late adolescent, alcoholic, influenzal, religiose, delusional (fear), suicidal, melancholic, impulsive, emaciated, pale, tremulous . . . . "

Even an examiner could not well find fault with that diagnosis. Its wisdom is that it does not classify.

The comments which follow upon Mrs Fifteen's case, as regards the subject of classification, may be summarised as follows:—

Classification of insanities is hopeless, because insanity is an invasion of personality.

Causes of insanity may be conveniently arranged, but not the cases which suffer from them.

Symptoms of insanity may be arranged, but not the patients who manifest them.

Lesions of insanity may be arranged, but not the brains which are invaded by them.

Every brain has its own insanity.

Any type of mental disease which is described as a class is, we may be sure, one to which no single case conforms without proving, in essential points, its exceptions.

THE END.

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